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ABSTRACT

This bibliography contains annotations of more than eighty books, review-and-synthesis papers, research reports, evaluation studies, and state-of-the-art essays. Titles are listed alphabetically within one of the following five categories: (1) data-base reports, (2) review-and-synthesis papers, (3) evaluation methodology, (4) empirical studies focusing on vocational education, and (5) miscellaneous documents. Data-base reports provide statistics and other information pertinent to national studies of vocational education outcomes, including explanations of various facets of vocational education evaluation. Documents that discuss evaluation methodology, models, frameworks, and systems applicable to vocational education are included in category 3. Category 4 includes studies investigating aspects of vocational education other than outcomes, such as program context, processes, resources (including facilities), goals, and student characteristics. The final category contains miscellaneous documents which discuss vocational education or themes vocationally related from a variety of perspectives. For example, youth employment is studied not only in terms of an outcome of vocational education programs, but also in terms of government-subsidized jobs. Following the annotations are three indexes which list all of the items included in the bibliography. These are arranged alphabetically by author, project identifier/publisher, and title. (LRA)

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ED177322

Bibliography Series No. 48

VOCATIONAL EDUCATION OUTCOMES: ANNOTATED BIBLIOGRAPHY OF RELATED LITERATURE

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Office of Education

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FOREWORD

Vocational Education Outcomes: Annotated Bibliography of Related Literature is an outgrowth of a systematic search for documents to be reviewed by the staff of the "Examining Vocational Education Outcomes and Their Correlates" project.

The final report of the project, prepared by Robert L. Darcy, Kathleen A. Bolland, and Joanne Farley with the assistance of Carolyn M. Taylor, included three attachments: a state-of-the-art essay on vocational education outcomes; a thesaurus of over two hundred possible outcomes of vocational education; and an evaluative bibliography of empirical outcomes studies in vocational education. It was decided that annotations of some of the documents reviewed for the project could provide useful background information to readers of the report. Consequently, an "Appendix of Key Related Literature" was included as part of the evaluative bibliography (Attachment A) in the final report. It is this appendix that has been adapted for publication here as an annotated bibliography of literature related to vocational education outcomes.

The bibliography contains annotations of some eighty documents--books, review and synthesis papers, research reports, evaluation studies, and state-of-the-art essays. Some of these publications have received a great deal of attention, while others have not been widely communicated. The annotations vary from brief descriptions that primarily serve to identify the document, to summaries that include lists of specific findings, conclusions, and recommendations. The intent is to provide enough information about a document to facilitate the reader's determination of its appropriateness as an original source to be consulted for additional information. It is expected that the bibliography will serve as a convenient guide and reference to educational policy analysts, researchers, vocational education administrators, teachers, graduate students and others interested in the study of vocational education and its outcomes.

A number of people made valuable contributions to the development of the general report and its various components. Distinguished representatives from business, labor, and education who served on the National Workshop Panel on Vocational Education Outcomes were: Walter G. Davis, American Federation of Labor and Congress of Industrial Organizations; Mary Ellen Hillaire, Evergreen State College (Washington); Addison S. Hobbs, Michigan Department of Education (now with the Maryland Department of Education); O. Louise Lothspeich, Oregon State Advisory Council on Vocational Education; Fred D. Mack, Central State University (Oklahoma);

Gerald Q. Miller, Sharon Steel Corporation (Pennsylvania) and Employers National Job Service Improvement Committee; Philip L. Smith, The Ohio State University; Jerry C. Olson, Pittsburgh Public Schools (Pennsylvania); Wallis E. Pereira, Industry Education Council of California; Clio S. Reinwald, Arizona Department of Education; Annell L. Simcoe, Rutgers University; and J. Robert Warmbrod, The Ohio State University.

The National Center is also grateful to Michael D. Hock of Worthington, Ohio; Douglas Sjogren of Colorado State University; and Michael Scriven of the University of San Francisco, who served as consultants for the study; and to the five members of the National Center's Evaluation Technical Advisory Panel--Carol B. Aslanian, College Entrance Examination Board; George C. Copa, University of Minnesota; Donald W. Drewes, Conserva, Inc.; Ruth P. Hughes, Iowa State University; and Daniel L. Stufflebeam, Western Michigan University--for their ideas and encouragement.

On behalf of the National Center, I want to express appreciation to the Bureau of Occupational and Adult Education, U.S. Office of Education, for sponsoring this study and to Robert L. Darcy, Senior Research Specialist at the National Center, for directing the overall project. We are indebted to Dr. Darcy, to Program Associate Kathleen A. Bolland, and especially to Graduate Research Associate Carolyn M. Taylor for their efforts in preparing this bibliography.

Robert E. Taylor
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VOCATIONAL EDUCATION OUTCOMES: ANNOTATED BIBLIOGRAPHY OF RELATED LITERATURE[1]

I. INTRODUCTION

The documents included in this annotated bibliography are listed alphabetically by title within one of the following five categories:

Category 1: Data-Base Reports

Category 2: Review and Synthesis Papers

Category 3: Evaluation Methodology

Category 4: Empirical Studies Focusing on Vocational Education Topics Other Than Outcomes

Category 5: Miscellaneous Documents

Data-base reports included here provide statistics and other information pertinent to national studies of vocational education outcomes, including explanations of how the data were collected. These reports are utilized by researchers, evaluators, practitioners, policy makers, and the general public. Illustrative of Category 1 are Learning a Living Across the Nation, the "Project Baseline" series produced for the National Institute of Education (NIE), and National Longitudinal Study of the High School Class of 1972, surveys sponsored by the National Center for Education Statistics.

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[1]This bibliography was prepared as part of an applied research and development project of the National Center for Research in Vocational Education, "Examining Vocational Education Outcomes and Their Correlates," under a contract with the Bureau of Occupational and Adult Education, Office of Education, U.S. Department of Health, Education, and Welfare. Other products of this study include an essay on perspectives for evaluating vocational education with respect to outcomes, a thesaurus of vocational education outcome questions, and an evaluative bibliography of empirical studies of vocational education outcomes. Further information on these products appears on the inside back cover of this document. The authors wish to express appreciation to Trisha Arthur for help in locating and collecting documents for review.

Review and synthesis papers provide an overview of various facets of vocational education evaluation. They help identify critical issues, report diverse perceptions and conclusions of evaluators, and list bibliographies of relevant literature. An example of the type of document included in Category 2 is Program Evaluation in Vocational Education: A Review, a paper produced for the Educational Resource Information Center (ERIC) Clearinghouse on Career Education as part of its information analysis series.

Documents that discuss evaluation methodology, models, frameworks, and systems applicable to vocational education are included in Category 3. Because there is a large body of literature in this area, only a sample of publications frequently cited or highly recommended by vocational education administrators and researchers was selected. An example is Evaluating Vocational Education: Policies and Plans for the 1970s, which details a variety of methods for measuring outcomes and addresses analytical problems involved in the evaluation of vocational education.[2]

Category 4 includes studies investigating aspects of vocational education other than outcomes[3] such as program context, processes, resources (including facilities), goals, and student characteristics. An example of entries in this category is the 1974 GAO report What Is the Role of Federal Assistance for Vocational Education?

Finally, Category 5 includes miscellaneous documents which discuss vocational education or themes vocationally related from a variety of perspectives. For example, youth employment is studied not only as an outcome of vocational programs, but also in terms of government-subsidized jobs. Included in this section is a study sponsored by the NIE, Education and Job Satisfaction: A Questionable Payoff. Evaluation reports on special populations, sex fairness, career education, economic education, and other general/academic education programs are also represented in this section.

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[2]As is the case with other publications listed in the bibliography, this book also contains material included in other categories. No multiple listings are made, however.

[3]For a review of outcome studies, see Vocational Education Outcomes: An Evaluative Bibliography of Empirical Studies by Kathleen A. Bolland. (Full citation appears on inside back cover of this publication.)

Numbers designated "ED," where provided in the citations, refer to the accession number sequentially assigned to documents as they are processed into the ERIC system and published in the monthly abstract journal Resources in Education of NIE. These documents, except as noted in Resources in Education, are available in either microfiche or hard copy (paper) from:

ERIC Document Reproduction Service (EDRS)
P.O. Box 190
Arlington, VA 22210

Many university libraries have collections of ERIC microfiche. When no ED number is given for a particular document, it presumably has not been entered in the ERIC system.

Following the annotations are three indexes which list all of the items included in the bibliography. These are arranged alphabetically by:

- Author (cross-indexed to title and category)
- Project Identifier/Publisher (cross-indexed to title and category)
- Title (cross-indexed to category)

II. CITATIONS AND ANNOTATIONS

A. Titles of Data-Base Reports (Category 1)[4]

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Career Thresholds: A Longitudinal Study of the Educational and Labor Market Experience of Male Youth. Volume 1. Herbert S. Parnes and others. Center for Human Resource Research, The Ohio State University, 1970.	8
Career Thresholds: A Longitudinal Study of the Educational and Labor Market Experience of Male Youth. Volume 2. Frederick A. Zeller and others. Center for Human Resource Research, The Ohio State University, 1970.	9
Career Thresholds: A Longitudinal Study of the Educational and Labor Market Experience of Male Youth. Volume 3. Andrew I. Kohen and Herbert S. Parnes. Center for Human Resource Research, The Ohio State University, May 1970.	10
Career Thresholds: A Longitudinal Study of the Educational and Labor Market Experience of Male Youth. Volume 4. Andrew I Kohen. Center for Human Resource Research, The Ohio State University, January 1973.	11
Career Thresholds: A Longitudinal Study of the Educational and Labor Market Experience of Male Youth. Volume 5. Paul Andrisani and Andrew I. Kohen. Center for Human Resource Research, The Ohio State University, April 1975.	12
Career Thresholds: A Longitudinal Study of the Educational and Labor Market Experience of Male Youth. Volume 6. Andrew I. Kohen and others. Center for Human Resource Research, The Ohio State University, March 1977.	12

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[4]Complete bibliographic citations for these titles, along with supplementary information, are provided with annotations on the pages that follow.

Page

Dual Careers: A Longitudinal Study of Labor Market Experience of Women. Volume 1 (of four volumes). John R. Shea and others. Center for Human Resource Research, The Ohio State University, May 1970. 13

Learning a Living Across the Nation. Volume 1. Project Baseline Second (sic) National Report. Baseline Year: 1970-1971 (Fiscal Year 1971). Arthur M. Lee. Northern Arizona University, November 1972. 14

Learning a Living Across the Nation. Volume 2. Project Baseline Second National Report. Baseline Year: 1971-1972 (Fiscal Year 1972). Arthur M. Lee and Robert Sartin. Northern Arizona University, November 1973. 15

Learning a Living Across the Nation. Volume 3. Project Baseline Third National Report. Baseline Year 1972-1973 (Fiscal Year 1973) Part 1 and Part 2. Arthur M. Lee. Northern Arizona University, November 1974. 15

Learning a Living Across the Nation. Volume 4. Project Baseline Fourth National Report. Baseline Year: 1973-1974 (Fiscal Year 1974). Part 1 and Part 2. Arthur M. Lee. Northern Arizona University, December 1975. 16

Learning a Living Across the Nation. Volume 5. Project Baseline Fifth National Report. Baseline Year: 1974-1975 (Fiscal Year 1975). Part 1 and Part 2. Arthur M. Lee. Northern Arizona University, November 1976. 17

National Longitudinal Study [of the High School Class of 1972]. Review and Annotations of Study Reports. Samuel S. Peng and others. Center for Educational Research and Evaluation, Research Triangle Institute, May 1977. 20

National Longitudinal Surveys Handbook. Herbert S. Parnes. Center for Human Resource Research, The Ohio State University, 1977. 24

Page

The Pre-Retirement Years: A Longitudinal Study of the Labor Market Experience of the Cohort of Men 45-59 Years of Age. Volume 1 (of four volumes). Herbert S. Parnes and others. Center for Human Resource Research, The Ohio State University, October 1968. 26

Project Talent. The American High School Student. John C. Flanagan and others. University of Pittsburgh, 1964. 27

Project Talent Data Bank: A Handbook. David V. Tiedeman. American Institutes for Research, April 1972. 28

Project Talent One-Year Follow-up Studies. John C. Flanagan and others. University of Pittsburgh, 1966. 28

Years for Decision: A Longitudinal Study of the Educational and Labor Market Experience of Young Women. Volume 1. John R. Shea and others. Center for Human Resource Research, The Ohio State University, February 1971. 29

Years for Decision: A Longitudinal Study of the Educational and Labor Market Experience of Young Women. Volume 2. Roger D. Roderick and Joseph M. Davis. Center for Human Resource Research, The Ohio State University, March 1973. 30

Years for Decision: A Longitudinal Study of the Educational and Labor Market Experience of Young Women. Volume 3. Roger D. Roderick and Andrew I. Kohen. Center for Human Resource Research, The Ohio State University, December 1973. 31

Years for Decision: A Longitudinal Study of the Educational and Labor Market Experience of Young Women. Volume 4. Frank L. Mott and others. Center for Human Resource Research, The Ohio State University, November 1977. 31

Youth in Transition. Volume 1. Blueprint for a Longitudinal Study of Adolescent Boys. Jerald G. Bachman and others. Institute of Social Research, University of Michigan, 1967. 32

B. Annotations of Data-Base Reports (Category 1)

Career Thresholds: A Longitudinal Study of the Educational and Labor Market Experiences of Male Youth. Volume 1. Herbert S. Parnes, Robert C. Miljus, and Ruth S. Spitz. Columbus: Center for Human Resource Research, The Ohio State University, 1970, 276 pp.

Data reported and analyzed in the six volumes entitled Career Thresholds were collected from interviews with a national sample selected to be representative of approximately 16 million young men in the U. S. civilian noninstitutionalized population who were in 1966 between the ages of 14 and 24. The general purpose of these studies is to contribute to an understanding of the factors that influence labor market "success" for young men of this age group.

In addition to educational and labor market experiences of the young men, the study examines their command of occupational information, their job attitudes, and their educational and occupational aspirations. Among the explanatory variables investigated are age, family structure, financial condition, skills, health and physical condition, school experiences, and certain environmental variables such as size of labor force and unemployment rate.

The data reported as a result of the first round of interviews in 1966 were subjected to tabular analyses as an initial step in identifying the variables most influential in explaining variations in aspirations and labor market experiences. Chapter 2 of Volume 1 describes the demographic and social characteristics of the group, examines the distribution of the characteristics, and considers some of the interrelations among them. For instance, blacks were found to fall below whites on all of the socioeconomic status indicators--they were less likely to be enrolled in the college preparatory curriuclum, they had completed fewer years of school, and they were less likely to have had vocational training outside of the educational system. Youth with rural backgrounds were less likely to be in school than those from urban areas.

Factors are investigated in Chapter 3 that appear to differentiate young men who are employed from those who are not. The lower unemployment rate of young men in their twenties than that of those in their teens was related to the likelihood that the older group was better educated, married, white, and nonstudents.

Chapter 4 examines the types of jobs the young men hold, hours worked per week, and rate of pay. For the young men 20-24 years of age not enrolled in school, hourly rate of pay was found to be nearly uniform among the major occupational groups and was found to be positively related to the number of years of school completed, to the extent of occupational training outside regular school, to good health, and to the size of the residence community.

Chapter 5 describes and analyzes findings from a section of the survey concerned with measuring the respondents' "knowledge of the world of work." Scores from a sample occupational information test (reproduced in Appendix F of Volume 1) are related positively to extent of education, measured intelligence, and socioeconomic status. When educational attainment is controlled, those with high scores on the occupational information test receive higher wages than those with low scores.

Chapter 6 explores attitudes of the employed youths toward their jobs. The majority--90 per cent of the whites and 85 per cent of the blacks--expressed positive feelings about their jobs. Educational and occupational aspirations reported in Chapter 7 indicate that young men between 14 and 17 still enrolled in school have very high educational and occupational goals. Sixty per cent say they want to obtain four or more years of college, and 70 per cent want at least two years of college. Almost half say they want to be in professional or technical occupations by age thirty.

* * *

Career Thresholds: A Longitudinal Study of the Educational and Labor Market Experience of Male Youth. Volume 2. Frederick A. Zeller, John R. Shea, Andrew I. Kohen, and Jack A. Meyer. Columbus: Center for Human Resource Research, The Ohio State University, October 1970, 161 pp. (ED 047 104)

This volume reports findings of the second round of National Longitudinal Survey interviews of young men and is characterized as a progress report designed to describe the magnitude and patterns of change that have occurred between the first and second interviews--changes in school enroll-

ment status, labor force participation, unemployment experience, occupational mobility, and educational aspirations. Summarized findings include the following:

- Downward revision of aspirations was most prevalent among those whose 1966 educational goals were highest and whose socioeconomic indicators appeared least supportive.

- While youths suffer high rates of joblessness and the problem is especially severe for blacks, a substantial portion of the unemployment reported is for those still in school before their transition to full-time work.

- High rates of occupational movement may reflect inappropriate early job choices but may also reflect a "healthy flexibility" that permits adjustments leading to improvement in status.

* * *

Career Thresholds: A Longitudinal Study of the Educational and Labor Market Experience of Male Youth. Volume 3. Andrew I. Kohen and Herbert S. Parnes. Columbus: Center for Human Resource Research, The Ohio State University, May 1970, 165 pp. (ED 054 336)

Findings of the third round of interviews conducted in 1968 are summarized in Volume 3, and changes in educational and labor market status occurring during the two years between the first (1966) and third (1968) surveys are described. The report states that since the external environment--the labor market--was fairly similar at the two points in time, it is assumed that changes in status of the members of the sample are primarily attributable to the changes in their personal characteristics. For instance, the effect of "aging"--two additional years of schooling and/or work and life experience--may have profound effects on their depth of understanding and seriousness of purpose.

* * *

Career Thresholds: A Longitudinal Study of the Educational and Labor Market Experience of Male Youth. Volume 4. Andrew I. Kohen. Columbus: Center for Human Resource Research, The Ohio State University, January 1973, 208 pp. (ED 074 280)

During the three-year period between the 1966 and 1969 interviews, a third of the young men changed their school enrollment status, a fifth changed their marital status, and a tenth of the students and more than a fourth of the non-students changed county (or Standard Metropolitan Statistical Area) of residence at least once.

While it was noted that high school graduates were more likely than dropouts to have favorable labor market experiences, it was acknowledged that both dropping out and unfavorable labor market experiences may be attributed to social and personal disadvantages.

Following are some of the differences found between graduates and dropouts:

- Graduates had lower rates of unemployment and were more likely to be employed full time.
- Graduates had advanced to higher occupational levels.
- Graduates were more likely to have participated in a formal occupational training program.
- While immediate monetary advantages of completing high school are not evident, by the third year after leaving school, graduates were earning higher hourly rates of pay than dropouts.

In examining changes in the educational and occupational goals of the young men continuously enrolled in school since the original interview, nearly one-half had changed their educational goals and three-fourths had revised their occupational aspirations. Changes in occupational preferences were found to occur mainly within, not across, occupational categories.

* * *

Career Thresholds: A Longitudinal Study of the Educational and Labor Market Experience of Male Youth. Volume 5. Paul Andrisani and Andrew I. Kohen. Columbus: Center for Human Resource Research, The Ohio State University, April 1975, 92 pp. (ED 111 961)

This report explores the impact of collective bargaining coverage on the 1969-1970 labor market experiences of a subset of members of the group who were 17 to 27 years of age, not enrolled in school, and employed as blue-collar workers in 1969.

The study led to the conclusion that collective bargaining coverage had a substantial net impact on the hourly earnings of blue-collar young men both white and black. Among blacks, union members experience less unemployment than nonmembers.

* * *

Career Thresholds: A Longitudinal Study of the Educational and Labor Market Experiences of Young Men. Volume 6. Andrew I. Kohen, John T. Grasso, Steven C. Myers, and Patricia M. Shields. Columbus: Center for Human Resource Research, The Ohio State University, March 1977, 383 pp. (ED 138 831)

This volume analyzes the educational and labor market experiences from 1966 to 1971--a five-year period which could be expected to reflect not only the impact of the Civil Rights movement and the effects of a period of relatively high employment (1966 to 1969) followed by a period when unemployment began to rise (1969 to 1971) but also the impact of military service on subsequent labor market experience for those returning to the civilian labor market.

Chapter 2 reports findings on goal formation and revision behavior, concluding that goal development by young men is an adaptive process developing over time.

Chapter 3, "The Labor Market Effects of Investment in Human Capital," further explores the connection between education and work. The findings suggest that schooling, formal training, and on-the-job training are all important for achieveing labor market success during the early career period. However, measures of high school or college quality were not

found to be related to labor market achievements, nor did the data indicate the existence of a credentials effect or the advantage of one high school curriculum over another. The study found (p. 192--Erratum) "no evidence . . . that graduates of high school vocational curricula fare better than other graduates in terms of starting rates of pay." The group's occupational mobility is explored in Chapter 4; youth unemployment and the various kinds of job separations are analyzed in Chapter 5; and determinants and consequences of serving in the armed forces during the Vietnam war are considered in Chapter 6.

* * *
* * *

Dual Careers: A Longitudinal Study of Labor Market Experience of Women. Volume 1. John R. Shea, Ruth S. Spitz, and Frederick A. Zeller. Columbus: Center for Human Resource Research, The Ohio State University, May 1970, 288 pp. (ED 043 755)

The first of four volumes published under the title Dual Careers reports survey data gathered from a representative sample of women who were 30 to 44 years of age at the time of the first survey in 1967.

Factors such as education and previous work experience, presence and ages of children at home, personal health and that of other family members, family income, access to child-care services, and attitudes toward the role of women are analyzed in an attempt to determine the extent to which they influence women's employment patterns, kinds of jobs accepted, earnings, and job satisfaction.

Of particular interest in the study of this group are experiences and problems associated with re-entry into the labor force by married women after their children no longer require their continuous presence at home.

Among the survey findings reported are the following:

- Women who had never been married experienced net upward mobility from their first to their current job.

- Women who were, or had been, married start lower on the occupational ladder and more of them experience downward mobility than experience upward mobility.

- Over 20 per cent of the white women and 33 per cent of the black women were married before age 18.

- Of those married before 18, a third of the whites and just over half of the blacks completed less than four years of high school.

Other volumes entitled Dual Careers and reporting data from subsequent interviews in the original five-year study include the following:

Dual Careers: A Longitudinal Study of Labor Market Experience of Women. Volume 2. Fookon Kim and others. Columbus: Center for Human Resource Research, The Ohio State University, September 1972, 131 pp. (ED 068 713)

Dual Careers: A Longitudinal Study of Labor Market Experience of Women. Volume 3. Carol L. Jusenius and Richard L. Shortlidge, Jr. Columbus: Center for Human Resource Research, The Ohio State University, February 1975, 187 pp. (ED 108 053)

Dual Careers: A Longitudinal Study of Labor Market Experience of Women. Volume 4. Herbert S. Parnes and others. Columbus: Center for Human Resource Research, The Ohio State University, December 1975, 329 pp. (ED 124 812)

Additional surveys of the women in this sample were conducted in 1974, 1976, and 1977; and surveys are planned for 1979, 1981, and 1983.

* * *
* * *

Learning A Living Across the Nation. Volume 1. Project Baseline Second [sic] National Report. Baseline Year: 1970-1971 (Fiscal Year 1971). Arthur M. Lee. Flagstaff. Northern Arizona University, November 1972, 454 pp. (ED 095 309)

This first report in a series of five published under the title Learning A Living Across the Nation uses Project

Baseline data to describe and analyze the status of vocational education and manpower training programs between 1970 and 1975. This series was prepared for the National Advisory Council on Vocational Education as a result of a request for information by the Appropriations Committee of Congress. The statistical data reported are drawn primarily from official state records combined with statistical data from the U. S. Census Bureau and the U. S. Department of Labor and include data from state education agencies not required by the U. S. Office of Education. Volume 1 reports data for the 1970-1971 school year.

* * *

Learning a Living Across the Nation. Volume 2. Project Baseline Second National Report. Baseline Year: 1971-1972 (Fiscal Year 1972). Arthur M. Lee and Robert Sartin. Flagstaff: Northern Arizona University, November 1973, 499 pp. (ED 095 310)

Volume 2 is characterized as a companion volume to the first in the series of Project Baseline reports. Since the first and second volumes were issued simultaneously, many of the tables in the second volume contain first-year data not found in Volume 1. Vocational education enrollment, cost, and placement data for the 1971-1972 school year are reported according to secondary, postsecondary, and adult levels of instruction by program areas.

Serious limitations to the usefulness of the data are explained as outgrowths of problems of definition, communication, and, in some cases, mishandling of data collected by state and federal agencies.

* * *

Learning a Living Across the Nation. Volume 3. Project Baseline Third National Report. Baseline Year: 1972-1973 (Fiscal Year 1973). Part 1: Narrative Report. Arthur M. Lee. Flagstaff: Northern Arizona University, November 1974, 108 pp. (ED 099 684)

Learning a Living Across the Nation. Volume 3. Project Baseline Third National Report. Baseline Year: 1972-1973 (Fiscal Year 1973) Part 2: Statistical Almanac. Arthur M. Lee. Flagstaff: Northern Arizona University, November 1974, 210 pp. (ED 099 685)

Volume 3 of the Project Baseline reports covers the school year 1972-1973 and is divided into a narrative report of

findings (Part 1) and a statistical data report (Part 2) on which the narrative is based. The first chapter of the narrative report contains a summary of significant findings based on the data, suggested implications for policy making, and these recommendations:

- New federal legislation for 1975 should include provisions for states to equalize vocational education opportunities for all.
- Federal spending priorities, as they affect vocational education, manpower training, unemployment, and welfare, should be re-examined.
- Congress should include in the legislation for 1975 a set of vocational education definitions, allowing for flexibility and, at the same time, providing for national standardization of terminology.
- A new reporting system should be established for both vocational education and manpower training in which data elements in machine readable form can be transmitted from local to state to federal level for computer tabulation and analysis at each level.

* * *

Learning A Living Across the Nation. Volume 4. Project Baseline Fourth National Report. Baseline Year: 1973-1974 (Fiscal Year 1974). Part 1: Narrative Report. Arthur M. Lee. Flagstaff: Northern Arizona University, December 1975, 144 pp. (ED 120 470)

Learning A Living Across the Nation. Volume 4. Project Baseline Fourth National Report. Baseline Year: 1973-1974 (Fiscal Year 1974). Part 2: Statistical Almanac. Arthur M. Lee and Dorris Fitzgerald. Flagstaff: Northern Arizona University, October 1975, 111 pp. (ED 120 471)

The fourth year Project Baseline data published in two parts provides a narrative report in Part 1 and a statistical data report in Part 2. A question and answer format is used to discuss vocational education enrollment, expenditures,

placements, instructional personnel, support services, and manpower data for the 1973-1974 reporting period. Chapter 3 reviews the impact of vocational education research and demonstration efforts, including a review of 28 state-administered research projects (Part C), 16 federally administered exemplary projects (Part D), and 12 state-administered exemplary projects, all of which have had extended use.

While considerable improvement in the reporting of vocational education data over the previous years is noted, persisting problems resulting from the lack of a nationally standardized set of definitions and inconsistent handling of data are pointed out. A review of information systems currently in use in each state is included along with a report of a special task force effort to bring uniformity to definitions of key terms used in reporting data, including the term "vocational education."

* * *

Learning A Living Across the Nation. Volume 5. Project Baseline Fifth National Report. Baseline Year: 1974-1975 (Fiscal Year 1975). Part 1: Narrative Report. Arthur M. Lee. Flagstaff: Northern Arizona University, November 1976, 188 pp. (ED 137 505)

Learning A Living Across the Nation. Volume 5. Project Baseline Fifth National Report. Baseline Year 1974-1975 (Fiscal Year 1975). Part 2: Statistical Almanac. Arthur M. Lee and Dorris Fitzgerald. Flagstaff: Northern Arizona University, November 1976, 136 pp. (ED 137 551)

The fifth-year Project Baseline report is divided into two parts, with the narrative report contained in Part 1 and the statistical data contained in Part 2. A question and answer format is used in presenting graphs and tables showing enrollment, expenditures, and trends in instructional personnel in vocational education from 1970-1975. A discussion of accountability difficulties due to the lack of adequate data concludes with a recommendation for a management information system that would detail to the public and to policy makers who is being trained and for what role, where the training is being given, how much it costs, and what the results are. Data elements that should be included in such a reporting system are described and suggestions made

include (1) the deletion of adult education as a level of vocational education and the use of grade levels K-14 to replace it; (2) the omission of traditional occupational service areas as data elements and use of a refined Office of Education code taxonomy of courses and job titles that will result in reporting data according to a taxonomy of programs and groups of job titles.

Among the general observations resulting from Project Baseline's five-year study of vocational education are the following:

- Vocational education enrollments have increased nationally.
- Vocational education has not expanded for the disadvantaged and handicapped at the same rate as for other students.
- Cooperative and work-study programs have reached only a fraction of their potential enrollment.
- Performance of the states varies widely on all measurements.
- In proportion to total population, women and ethnic minority groups have a greater representation in vocational education than other segments of the population.
- Approximately half of the high school population is reported as being enrolled in vocational education.
- Employment rates for vocational education program completers available for work is higher than for comparable age groups in the total labor force.
- In comparison with state and local support, the federal share of vocational education expenditures has steadily declined.
- The enrollment of manpower training programs under the U. S. Department of Labor is less than five per cent of the reported enrollment in vocational education.

- There is a serious shortage of vocational education teachers.
- Research has had an important impact on program development in vocational education since 1963.
- While state and federal reporting has improved, there are still reporting problems that need to be solved.

A series of Project Baseline Supplemental Reports published between 1974 and 1976 includes the following titles:

Appraisal of the Manpower Training Programs Established by Congress in the 1960s. Project Baseline Supplemental Report. George L. Brandon. Flagstaff: Northern Arizona University, August 30, 1974, 97 pp. (ED 099 691)

Assessing Vocational Education Research and Development. Project Baseline Supplemental Report. Committee on Vocational Education Research and Development. Washington, D.C.: National Academy of Sciences, 1976, 138 pp. (ED 128 654)

Career Education in the United States Today: What It Is, Where, and the Results So Far. Project Baseline Supplemental Report. Robert M. Worthington. Flagstaff: Northern Arizona University, June 28, 1974, 55 pp. (ED 099 693)

Impact of Vocational Education and Manpower Training on Target Populations: Ethnic Groups, the Disadvantaged, Handicapped, Unemployed, and Unemployable Adults. Project Baseline Supplemental Report. James E. Wall. Flagstaff: Northern Arizona University, July 31, 1974, 54 pp. (ED 099 686)

Impact of Vocational Education and Manpower Training on the Labor Market. Project Baseline Supplemental Report. Gordon F. Law. Flagstaff: Northern Arizona University, August 1, 1974, 52 pp. (ED 099 692)

Impact of Vocational Education Research at the Federal and State Levels. Project Baseline Supplemental Report. Robert Miller. Flagstaff: Northern Arizona University, October 25, 1974, 140 pp. (ED 099 687)

Preparation of Teachers for Vocational Education. Project Baseline Supplemental Report. Gordon I. Swanson. Flagstaff: Northern Arizona University, September 1974, 34 pp. (ED 099 690)

Report to the Nation on Vocational Education. Project Baseline Supplemental Report. Mary L. Ellis. Flagstaff: Northern Arizona University, November 1975, 125 pp. (ED 116 052)

Women in Vocational Education. Project Baseline Supplemental Report. Marilyn Steele. Flagstaff: Northern Arizona University, October 30, 1974, 154 pp. (ED 099 689)

Vocational Education Planning in the States: Project Baseline Supplemental Report. Patrick J. O'Reilly. Flagstaff: Northern Arizona University, December 1975, 60 pp.

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National Longitudinal Study [of the High School Class of 1972]. Review and Annotations of Study Reports. Samuel S. Peng, Celcille E. Stafford, and Robin J. Talbert. Durham, North Carolina: Center for Educational Research and Evaluation, Research Triangle Institute, Research Triangle Park, May 1977, 78 pp.

The stated purpose of this publication was to "establish an inventory of studies" that used the National Longitudinal Study of the High School Class of 1972 (NLS/72) data base so that an exchange of ideas among users might take place and areas needing further investigation could be identified. Monitored and primarily funded by the National Center for Education Statistics, the NLS/72 focuses on the educational, vocational, and personal development of high school graduates and on the various personal, social, and cultural factors contributing to that develcpment.

The study began in the spring of 1972 with a national probability sample of 19,136 seniors from 1,070 public, private,

and church-affiliated high schools. Added to the base-year sample were another 4,315 students of the class of 1972 from 248 schools that had been unable to participate in the earlier survey. Each student was asked to complete a student questionnaire and to take a 69-minute test battery. Survey administrators were asked to complete a student record form and a school questionnaire, and school counselors were asked to complete a special questionnaire designed to provide data about their training and experience.

The first follow-up began in October 1973, the second in October 1974, and the third in October 1976. The data files for the base year and the first and second follow-up surveys have been merged and have been used by researchers to investigate various educational, vocational, and social issues.

Chapter 2 describes the NLS/72 data base and data coverage in terms of content areas and time frame in which variables were measured. Findings from the various analyses of the NLS/72 data are summarized in Chapter 3 and include the following:

- The NLS/72 sample represents about three million high school seniors in 1972 made up of 82 per cent white, 9.5 per cent black, and 8.5 per cent from other minority groups.

- A quarter of the black students and about half of the white students were enrolled in academic programs.

- Half of the black students and 29 per cent of the white students were enrolled in general programs.

- A quarter of the black students and about 20 per cent of the white students were enrolled in vocational programs.

- Both vocational and general students had lower scores than academic students on the academic ability tests.

- Compared to general education students, vocational education students achieved higher grades, were less alienated toward school, and were more focused in their postsecondary work aspirations.

- Job training received in high school correlated positively with occupational attainment and income after graduation. Participants were more likely to be employed and had a higher median income than nonparticipants.

An annotated bibliography of over 150 documents pertaining to the NLS/72 data is presented in Chapter 4, with names and addresses of data file users appearing in the index. Following is a partial listing of NLS/72 publications:

Changes in Attitudes One and One-Half Years After Graduation. William B. Fetters. Washington, D.C.: National Center for Education Statistics, 1974, 14 pp. (ED 117 155)

National Longitudinal Study of High School Seniors. An Agenda for Policy Research. Stephen J. Carroll and Peter A. Morrison. Santa Monica: Rand Corporation, June 1976, 80 pp. (ED 135 818)

National Longitudinal Study of High School Seniors. Fulfillment of Short-Term Educational Plans and Continuance in Education. William B. Fetters and others. Washington, D.C.: National Center for Education Statistics, 1977, 42 pp.

National Longitudinal Study of the High School Class of 1972. Base-Year Study: Student Questionnaire and Test Results by Academic Ability, Socioeconomic Status and Region. William B. Fetters. Washington, D.C.: National Center for Education Statistics, 1976, 106 pp. (ED 120 252)

National Longitudinal Study of the High School Class of 1972. Capsule Description of First Follow-up Survey Data. B. K. Eckland and J. P. Bailey. Research Triangle Institute. Durham, North Carolina: Research Triangle Institute, Center for Educational Research and Evaluation, 1976, 47 pp. (ED 120 251)

National Longitudinal Study of the High School Class of 1972. Capsule Description of High School Seniors. Base-Year Survey. William B. Fetters. Washington, D.C.: National Center for Educational Statistics, 1974, 43 pp. (ED 097 368)

National Longitudinal Study of the High School Class of 1972. Capsule Description of Second Follow-up Survey Data. October 1974. Bruce K. Eckland and J. P. Bailey, Jr. Durham, North Carolina: Research Triangle Institute, Center for Educational Evaluation and Research, 1977, 62 pp. (ED 139 826)

National Longitudinal Study of the High School Class of 1972. Comparative Profiles One and One-Half Years After Graduation. William B. Fetters. National Center for Education Statistics, 1975, 68 pp. (ED 120 202)

National Longitudinal Study of the High School Class of 1972. Counselor Questionnaire. Educational Testing Service. Princeton: Educational Testing Service, 1972, 8 pp. (ED 097 371)

National Longitudinal Study of the High School Class of 1972. First Follow-up Survey Design, Instrument Preparation, Data Collection, and File Development. Kenneth Tabler. Washington, D.C.: National Center for Education Studies, 1977, 48 pp. (ED 141 406)

National Longitudinal Study of the High School Class of 1972. Parent's Questionnaire. Educational Testing Service. Princeton: Educational Testing Service, 1973, 7 pp. (ED 097 370)

National Longitudinal Study of the High School Class of 1972. Sample Design Efficiency Study: Effects of Stratification, Clustering and Unequal Weighting on the Variances of NLS Statistics. William B. Fetters. Washington, D.C.: National Center for Education Statistics, 1977, 26 pp. (ED 146 189)

National Longitudinal Study of the High School Class of 1972. Student Questionnaire. Educational Testing Service. Princeton: Educational Testing Service, 1972, 26 pp. (ED 097 369)

National Longitudinal Study of the High School Class of 1972. Student Questionnaire and Test Results by Sex, High School Program, Ethnic Category, and Father's Education. William B. Fetters. Washington, D.C.: National Center for Education Statistics, 1975, 127 pp. (ED 111 850)

National Longitudinal Study of the High School Class of 1972. Student's School Record Information. Education Testing Service. Princeton: Educational Testing Services, 1972, 6 pp. (ED 097 372)

National Longitudinal Study of the High School Class of 1972. Symposium: Trends in Post-secondary Education. J. P. Bailey, Jr., ed. Washington, D.C.: American Educational Research Association, April 1977, 100 pp. (ED 142 126)

National Longitudinal Study of the High School Class of 1972. Tabular Summary of the First Follow-up Questionnaire Data. Kenneth Tabler. Durham, North Carolina: Research Triangle Institute, 1976, 965 pp. (ED 143 677)

National Longitudinal Study of the High School Class of 1972. Tabular Summary of Student Questionnarie Data. Volume 1. (Questions 1-37). Bruce W. Thompson. Princeton: Educational Testing Service, 1974, 459 pp. (ED 103 452)

National Longitudinal Study of the High School Class of 1972. Tabular Summary of Student Questionnaire Data. Volume 2. (Questions 38-95). Bruce W. Thompson. Princeton: Educational Testing Service, 1974, 475 pp. (ED 103 453)

One and One-Half Years After High School Graduation: The Class of 1972. National Center for Education Statistics. Washington, D.C.: National Center for Education Statistics, June 1975, 5 pp. (ED 110 730) (Journal citation: Advanced Statistics for Management Bulletin, No. 21, June 16, 1973)

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National Longitudinal Surveys Handbook. Herbert S. Parnes. Columbus: Center for Human Resource Research, The Ohio State University, Revised November 1977, 87 pp.

Since 1966, National Longitudinal Surveys (NLS) have been conducted to gather data on the labor market experience and other characteristics of men 45-59 years old and young men 14-24. In 1967 a third group, women 30-44, was added;

and in 1968 a fourth group, young women 14-24, was added to the study. The NLS project, sponsored by the U.S. Department of Labor, is carried out by The Ohio State University's Center for Human Resource Research (Dr. Herbert Parnes, Project Director). Studies utilizing NLS data (see list of titles below) attempt to identify characteristics that appear to be most important in explaining variations in employment, unemployment, and labor force mobility. National probability samples of approximately 5,000 were drawn to represent each group; and personal interviews in addition to mail and telephone surveys have been made periodically. Because of the widespread interest in the data and low attrition rates within the groups, the decision was made to increase the extent of the surveys from the original period of 5 years to 15 years. Final interviews are scheduled in 1981 for the older and younger men, 1982 for the older women, and 1983 for the young women.

Volumes reporting findings from surveys already conducted are cited in Category 1 under the following titles:

Career Thresholds: A Longitudinal Study of the Educational and Labor Market Experience of Male Youth. Volumes 1-6.

Dual Careers: A Longitudinal Study of Labor Market Experience of Women. Volumes 1-4.

Pre-Retirement Years: Five Years in the Work Lives of Middle-Aged Men. Volumes 1-4.

Years for Decision: A Longitudinal Study of the Educational and Labor Market Experience of Young Women. Volumes 1-4.

Surveys scheduled for a newly developed panel of young men and young women (with the first survey scheduled for January 1979) are expected to enable replication of analyses made of earlier cohorts and will help evaluate the expanded employment and training programs of the late 1970s.

The Handbook describes NLS sampling, interviewing, and estimating procedures and provides a table of survey schedules and a listing of variables investigated in the surveys for each of the groups. Characteristics of the data files are described, and information is provided on how to obtain data tapes. A National Longitudinal Surveys Bibliography

of approximately 300 entries provides a list of the comprehensive and special reports generated as a result of the surveys.

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The Pre-Retirement Years: A Longitudinal Study of the Labor Market Experience of the Cohort of Men 45-59 Years of Age. Volume 1. Herbert S. Parnes, Belton M. Fleisher, Robert C. Miljus, and Ruth S. Spitz. Columbus: Center for Human Resource Research, The Ohio State University, October 1968, 303 pp. (ED 026 525)

This report is the first in a study of labor market experience and behavior of men who were 45 to 59 years of age in 1966. Data gathered from a national probability sample of 5,000 men relative to economic, social, and psychological variables are analyzed in an attempt to describe and explain differences in labor force participation, commitment to work, propensity to retire, rates of pay, and job satisfaction.

Other volumes reporting survey data from the same sample through 1971 are these:

The Pre-Retirement Years: A Longitudinal Study of the Labor Market Experience of Men. Volume 2. Herbert S. Parnes and others. Columbus: Center for Human Resource Research, The Ohio State University, January 1970, 122 pp. (ED 039 331)

The Pre-Retirement Years: A Longitudinal Study of the Labor Market Experience of Men. Volume 3. Herbert S. Parnes and others. Columbus: Center for Human Resource Research, The Ohio State University, August 1972, 151 pp. (ED 068 682)

The Pre-Retirement Years: Five Years in the Work Lives of Middle-Aged Men. Volume 4. Herbert S. Parnes and others. Columbus: Center for Human Resource Research, The Ohio State University, December 1974, 425 pp. (ED 103 052)

Additional surveys of the men in this group were conducted in 1973, 1975, 1976, and 1978 and are scheduled for 1980 and 1981.

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Project Talent. The American High School Student. John C. Flanagan, Frederick B. Davis, John T. Dailey, Marion F. Shaycoft, David B. Orr, Isadore Goldberg, and Clinton A. Neyman, Jr. Pittsburgh: University of Pittsburgh, 1964, 738 pp.

One of the major publications in a series of Project TALENT reports published since 1960, this volume describes the effort to determine the aptitudes and abilities of the nation's high school students. In 1960 a probability sample of over 440,000 students in the 9th , 10th, 11th, and 12th grades in 987 randomly selected high schools across the country were administered a comprehensive set of educational and psychological tests and inventories. The more than 2,000 items included were intended to produce information that would describe talents, help to establish standards, and lead to identification of aptitude and ability patterns predictive of success in various careers.

The follow-up surveys scheduled one, five, ten, and twenty years following the year of graduation for each class were planned to trace the careers of the students in a continuing effort to maintain an updated data bank on the original sample.

Previously published Project TALENT publications provide detailed information on the project's basic plans, the instruments used in the survey, and the characteristics of American high schools.

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Project Talent Data Bank: A Handbook. David V. Tiedeman. Palo Alto, California: American Institutes for Research, April 1972, 119 pp.

This publication is intended to provide researchers interested in the Project TALENT data bank an overview of the project's purpose, measures, sampling, weighting, and follow-up procedures in addition to information about the special data files available for further study. Services available from the Institute include printouts, worktapes, and contract research. Hypothetical examples of the kinds of projects made possible through the use of Project TALENT data, as well as actual projects which have used the data bank between 1964 and 1971, are summarized in the appendix to the Handbook. A list of Project TALENT publications through 1971 is also provided.

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Project Talent One-Year Follow-up Studies. John C. Flanagan and William W. Cooley. Pittsburgh: University of Pittsburgh, 1966, 387 pp. (ED 101 087)

This report describes the follow-up procedures used and the data gathered from mail surveys of the original Project TALENT sample of over 440,000 high school students undertaken one year following graduation of each of the high school classes from 1961 to 1964. Data on the schools they attended, the jobs they held, the careers they planned, and choices they made are reported and related to information collected from the 1960 survey in an effort to determine how young people choose careers and how educational experiences prepare them for those careers.

The final chapter describes the use of a computer measurement system by guidance programs to maintain cumulative and progress records, to evaluate educational productivity of curriculum and staff, to project vocational potentials for students, to monitor and prescribe individual learning, and to manage continuation services to graduates and school-leavers. The reference section includes a listing of Project TALENT publications, published articles, and research reports delivered by staff members at professional meetings.

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Years for Decision: A Longitudinal Study of the Educational and Labor Market Experience of Young Women. Volume 1. John R. Shea, Roger D. Roderick, Frederick A. Zeller, and Andrew I. Kohen. Columbus: Center for Human Resource Research, The Ohio State University, February 1971, 245 pp. (ED 049 376)

Data gathered in the initial 1968 National Longitudinal Survey of a representative sample of 5,000 young women 14 to 24 years of age is analyzed and reported in this first of four volumes published under the title Years for Decision. Marital and familial characteristics, financial status, education and training, health condition, attitudes and the labor market are examined as explanatory variables and then related to labor force participation, unemployment, mobility, and educational and occupational aspirations of the young women.

The data show that the years between 14 and 24 are critical for young women faced with pressures and options: whether to continue or to leave school, whether or not to get married, whether to stay with parental family or to develop independence. While these decisions are recognized to be interrelated with decisions about education and work, causal relationships are unclear.

Findings from the initial survey include the following:

- Approximately 70 per cent of the young women 14 to 17 years of age enrolled in school say they would like two or more years of post-secondary schooling.
- The highest level of school completed is related to the occupational assignments and the hourly rate of pay of the young women who are employed.
- Shorthand and/or typing skills acquired in high school and occupational training outside the formal school are related to employment generally and white-collar employment specifically.
- Marital and family status have a direct influence on a woman's occupational assignment and is interrelated with such factors as educational attainment and health.

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Years for Decision: A Longitudinal Study of the Educational and Labor Market Experience of Young Women. Volume 2. Roger D. Roderick and Joseph M. Davis. Columbus: Center for Human Resource Research, The Ohio State University, March 1973, 144 pp. (ED 076 812)

This volume investigates the extent to which changes occurred in the educational and labor market status and aspirations of young women during the year following the original interview. The following findings resulted from the 1969 interviews:

- The dropout rate for young white women was comparable to that shown for young white men between 1966 and 1976 (NLS, Career Thresholds), but the dropout rate for young black women at the high school level exceeded that of their male counterparts.

- The percentage of young women revising their educational goals downward was similar to that of young men; however, in contrast to the young men, who reported economic factors as the reason for revising goals, young women most often cited changes in "interest."

- For young women out of school on both survey dates who had completed exactly 12 years of school, those who had been enrolled in vocational or commercial programs made the greatest gains in rate of pay during the year, while those from general curricula made the smallest.

- Job changes were related to higher hourly earnings and increased job satisfaction.

- As measured by the occupational information test used in the survey, white young women have substantially more labor market knowledge than black young women--a variation that persists even after controlling for educational attainment and mental ability.

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Years for Decision: A Longitudinal Study of the Educational and Labor Market Experience of Young Women. Volume 3. Roger D. Roderick and Andrew I. Kohen. Columbus: Center for Human Resource Research, The Ohio State University, December 1973, 111 pp. (ED 094 135)

The third volume in the series of reports examining labor market and educational experiences and aspirations of young women includes data gathered in the 1970 interviews with the young women 14 to 24 years of age at the time of the initial survey in 1968. Included in the data were the following findings:

- The young women continued to revise their goals, bringing them more in line with "reality."
- Expected levels of educational attainment dropped slightly.
- Forty per cent of the young women had changed their plans for age 35, overwhelmingly in the direction of employment at that age.
- Approximately 20 per cent of those who had never been married in 1968 were married in 1970, and more than 10 per cent who had been childless in 1968 had at least one child by 1970.
- Interfirm changes in employment were related to change in occupation, increase in hourly wage, and job satisfaction.

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Years for Decision: A Longitudinal Study of the Educational and Labor Market Experience of Young Women. Volume 4. Frank L. Mott, Steven H. Sandell, David Shapiro, Patricia K. Brito, Timothy J. Carr, Rex C. Johnson, Carol L. Jusenius, Peter J. Koenig, and Sylvia F. Moore. Columbus: Center for Human Resource Research, The Ohio State University, November 1977, 366 pp. (ED 147 540)

The research studies in this volume indicate that a substantial portion of young women, represented by those who were 14 to 24 years of age in 1968, will spend a major part of their lives in the labor force. Most women continue to plan careers in traditionally female positions and as a

result continue to occupy lower paying positions than those occupied by men.

Findings of the six studies reported in this volume include the following:

- Parental factors directly affect a young woman's educational experiences and have a significant effect on the type of career path she plans to follow.
- A young black woman with socioeconomic background characteristics similar to the average white young woman is more likely to have college aspirations and is also more likely to attend college than her white counterpart.
- There is evidence that women committed to the labor force are willing to accept low initial wages as a price for job training promising higher lifetime earnings.
- Marriage disruption increases the likelihood that young women will enter the labor force.
- Nonparticipation in the labor force associated with childbirth increasingly tends to be brief.

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Youth in Transition. Volume 1. Blueprint for a Longitudinal Study of Adolescent Boys. Jerald G. Bachman, Robert L. Kahn, Martha T. Mednick, Terrence N. Davidson, Lloyd D. Johnston. Ann Arbor: Institute for Social Research, University of Michigan, 1967, 274 pp. (ED 026 463)

This first in a series of six volumes summarizes the plans for the six-year longitudinal study of a national sample of approximately 2,200 young men in 87 high schools. The first data collection in the fall of 1966 was made when the boys were in the 10th grade. Follow-up surveys were

conducted in the spring of 1968, the spring of 1969, and in June and July 1970 when most of the boys had been out of high school for about a year. Volume 1 contains descriptions of study design, sampling procedures, response rates, and questionnaires.

Following are titles of other volumes in the series:

Youth in Transition. Volume 2. The Impact of Family Background and Intelligence on Tenth-Grade Boys. Jerald C. Bachman. Ann Arbor: Institute for Social Research, 1970, 293 pp. (ED 051 414)

Youth in Transition. Volume 3. Dropping Out--Problem or Symptom? Jerald C. Bachman and others. Ann Arbor: Institute for Social Research, University of Michigan, 1971, 255 pp. (ED 059 333)

Youth in Transition. Volume 4. Evolution of A Strategy for Longitudinal Analysis of Survey Panel Data. Terrence N. Davidson. Ann Arbor: Institute for Social Research, University of Michigan, 1972, 130 pp. (ED 064 440)

Youth in Transition. Volume 5. Young Men and Military Service. Jerome Johnston and Jerald C. Bachman. Ann Arbor: Institute for Social Research, University of Michigan, 1972, 259 pp. (ED 072 185)

Youth in Transition. Volume 6. Adolescence to Adulthood: Change and Stability in the Lives of Young Men. Jerald C. Bachman and others. Ann Arbor: Institute for Social Research, University of Michigan, 1978, 351 pp.

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C. Titles of Review and Synthesis Reports (Category 2)[5]

	Page
Evaluation of Vocational Technical Education. Phase I. New Educational Directions, Inc. Indianapolis: The Indiana State Board of Vocational Technical Education, July 1975.	35
Program Evaluation in Vocational Education: A Review. Floyd McKinney. The Center for Vocational Education, The Ohio State University, 1977.	35
Review and Synthesis of Cost-Effectiveness Studies of Vocational and Technical Education. Ernst W. Stromsdorfer. The Center for Vocational Education, The Ohio State University, 1972.	37
Review and Synthesis of Research on Cooperative Vocational Education. Harold R. Wallace. The Center for Vocational and Technical Education, The Ohio State University, June 1970.	39
Review and Synthesis of Research on the Economics of Vocational Education. J. Robert Warmbrod. The Center for Vocational and Technical Education, The Ohio State University, November 1968.	40
Review and Synthesis of Research on the Placement and Follow-up of Vocational Education Students. J. Kenneth Little. The Center for Vocational and Technical Education, The Ohio State University, February 1970.	41
A Synthesis of Research Findings Which Describe Selected Benefits and Outcomes for Participants in Vocational Education. Doug Sparks. Bureau of Occupational and Adult Education, U.S. Department of Health, Education, and Welfare, October 1977.	43
What Happens After Training? A Review of Follow-Up of Vocational Graduates. Krishan K. Paul. Urban Observatory of Metropolitan Nashville and University Centers, September 30, 1976.	45

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[5]Complete bibliographic citations for these titles, along with supplementary information are provided with annotations on the pages that follow.

D. Annotations of Review and Synthesis Reports (Category 2)

Evaluation of Vocational Technical Education. Phase I. New Educational Directions, Inc. Indianapolis: The Indiana State Board of Vocational Technical Education, July 1975, 25 pp.

Using responses from State Departments of Public Instruction and information resulting from an ERIC search, this document reports on the status of evaluation activities by the various states according to these categories: self-study, visiting team, follow-up of students, employer and/or community evaluation, cost/benefit analysis, behavioral objectives, nonbehavioral objectives, and job-placement relatedness.

The report concludes that regardless of the method, or combination of methods, used for evaluating a particular school or program, it is of primary concern that the evaluation system meet the needs of the school or program in that it results in a cooperative effort to implement the findings. A bibliography of 261 citations is included.

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Program Evaluation in Vocational Education: A Review. Information Series No. 117. Floyd McKinney. Columbus: The Center for Vocational Education, The Ohio State University, 1977, 41 pp. (ED 149 186)

The author points out that even though it is generally agreed that the evaluation of vocational education programs is necessary for better decision-making, for various reasons a comprehensive and systematic approach to program evaluation has been slow to develop.

In this review of literature on evaluation of vocational education since 1970, reference is made to several conceptual schemes and models that have been used typically in program evaluation by researchers and education agencies.

Since it is reasoned that identifying needs--as may be reflected in program objectives--is basic to an evaluation effort, a discussion of several needs-assessment surveys is included, providing suggestions for sampling techniques and questionnaire content. Summarized strategies for conducting former student follow-ups, employer surveys, student-parent surveys, and cost-benefit studies contain procedural checklists and suggestions for those considering these kinds of studies.

In a discussion of management information systems, specific reference is made to the systems that have been developed for Florida, Massachusetts, and Tennessee.

Studies carried out by the Kentucky, South Carolina, Oklahoma, Washington, and Florida State Advisory Councils are summarized; and it is noted that while most state advisory councils use existing data in the preparation of their annual reports, several have also initiated special research and cost-benefit analysis studies. The U.S. Office of Education, the American Vocational Association, the departments of vocational education in each state, and various national, regional, and professional accrediting agencies are cited as additional sources of standards, sample questionnaires, and guidelines for use in measuring and assessing program characteristics and other aspects of vocational education.

Based on his review of the literature and experience in vocational education program evaluation, the author has arrived at the following conclusions:

- While "one-shot" evaluation efforts in vocational education have some value, program evaluation should be a comprehensive and continuous effort.
- While more emphasis should be placed on cost analysis studies, it should be realized that such studies leave out important subjective factors that every decision-maker must consider.
- Institutions and agencies need to devote more resources for developing program objectives since measurable objectives are essential to program evaluation.
- Research in all areas of methodology is needed.

- Since program evaluation depends on a continuous flow of reliable and valid information, systematic and comprehensive information collection is needed.

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Review and Synthesis of Cost-Effectiveness Studies of Vocational and Technical Education. Information Series No. 57. Ernst W. Stromsdorfer. Columbus: The Center for Vocational and Technical Education, The Ohio State University, 1972, 151 pp. (ED 066 554)

The author of this study identifies the noneconomist as his intended audience and begins his study with an overview of the use of economic analysis and theory which is fundamental to an understanding of cost-benefit analysis studies. Included in this section of the report is a discussion of optimum allocation of public expenditures for vocational education through an appropriate investment-decision rule which considers net present value, internal rate of return, and benefit-cost ratio.

Some of the conceptual and measurement problems that need to be addressed in the analysis of educational investment are pointed out: earnings versus utility maximization, nonmarket production and consumption, impact of education on values and preferences, complementary and inseparability of human skills, external effects, influence of unemployment on the determination of costs and benefits, and the problems of the control group.

Drawn primarily from studies, papers, reports, and monographs published in the 1960s that attempt to evaluate vocational and manpower training programs, the report states that relatively few were found that dealt adequately with the investment aspects of the programs. Problems with interpreting the implications of cost-benefit studies evolve from weaknesses in methodology such as lack of control or

appropriate comparison groups, inadequate sampling and non-response procedures, failure to deal with self-selection bias, failure to use sophisticated procedures for the analysis of data, and failure to establish, beforehand, acceptable levels of statistical significance.

Following are some of the conclusions drawn by the author as a result of his review:

Secondary Vocational Education: Based on evidence from studies, secondary vocational curriculum seems to yield greater labor market benefits than the comprehensive curriculum. Consideration needs to be given, however, to the dissimilarity of objectives and populations served by the curricula. Cost-benefit measures which compare sets of vocational skills are lacking, and information on gross earnings or wage differentials by skills loses its usefulness in the absence of cost information.

Postsecondary Vocational Education and Junior College: For students who already have a sound high school vocational preparation, further postsecondary vocational education does not yield substantial benefits. While greater benefits are associated with graduation from junior college than from secondary vocational education training, the existence of objective and population differences need to be taken into consideration when the data are interpreted.

Manpower training: Results of studies of training programs in this category indicate they are a worthwhile investment but causal factors have not been isolated. Manpower training is viewed as a necessary complement to vocational education training when consideration is given to the rapid changes in technology and the differences in the populations served by the two programs.

The report suggests that in spite of limitations, cost-benefit studies provide a rational, systematic approach to the economic analysis of programs designed to improve efficiency of the labor force and to increase the overall welfare and well-being of society. However, costs of well-designed, comprehensive studies will continue to limit the widespread use of this form of program evaluation.

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Review and Synthesis of Research on Cooperative Vocational Education. Research Series No. 60. Harold R. Wallace. Columbus: The Center for Vocational and Technical Education, The Ohio State University, June 1970, 124 pp. (ED 040 274)

The research topics covered by this review of studies and literature published between 1962 and 1969 are arranged into four categories with a corresponding bibliography topically arranged. There are four focus areas:

- The Student Learner: This section includes a review of research concerned with self-concept, work adjustment, and special needs--data that may be considered as input for curriculum development and implementation in cooperative vocational education.

- The Employment Community: Manpower analysis studies, manpower data sources, task analysis models, and occupational analysis studies are reviewed in this section.

- Educational Technology: Procedures, products, and problems of research dealing with instructional objectives and content are discussed, and a review of selected research concerned with teaching techniques and procedures is included.

- Program Implementation: This section reviews research and literature dealing with program administration and evaluation.

Few of the studies reported dramatic evidence of the value of one instructional technique or one instructional system over another. Reasons identified were the lack of pre-test/post-test instruments, techniques and procedures sensitive to measuring what should be measured, and inadequate design of research studies that control for intervening variables. The author reports that the most successful studies investigated a single factor and provided obviously similar situations for the experimental and control subjects.

The author concludes that the basic concepts of cooperative vocational education need to be logically organized, articulated, and subjected to systematic theory building,

leading to the establishment of general guidelines. Research needs and priority areas identified by the author include the following:

- A theoretical and philosophical framework for research and development in vocational education
- Interpretation dissemination systems for manpower data to be used by program developers
- Research technology to provide for the transformation of occupational analysis data into instructional objectives
- Techniques and instruments for the evaluation of instruction
- Study of the contribution of occupational experiences to professional training and the impact of teacher-coordinator characteristics on the behavior of the student-learner
- Research involving psychological constructs such as "work values" and "personal adjustment"
- Dissemination of research and development products

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Review and Synthesis of Research on the Economics of Vocational Education. Research Series No. 16. J. Robert Warmbrod. Columbus: The Center for Vocational and Technical Education, The Ohio State University, November 1968, 62 pp. (ED 023 937)

The documents included in this review, published between 1962 and 1968, identify issues and problems in research on the economics of vocational education. The point is made that while there has been general agreement that education

is a vital element in economic growth, the relative contributions of occupational programs and various other educational programs have not been clearly shown.

A discussion of the research investigating education as it is related to earnings, rate of return on investment, economic growth, and external benefits is followed by a similar but more extensive treatment of research on the economic aspects of vocational education. The author points out that since there is concern not only for the efficient use of resources allocated to vocational education but also for consideration of alternative programs to reach the same objective, costs of programs must be justified on the basis of outcomes. Several approaches and techniques for measuring these outcomes are discussed; and specific studies and critiques of studies using cost-benefit and cost-effectiveness procedures in analyzing vocational education, technical education, and manpower training programs are described. Conceptual and practical problems involved in the application of cost-benefit analysis to vocational education are pointed out, and the suggestion is made that those who plan research in this area become familiar with the issues and problems discussed in the studies reviewed.

The author contends that the usefulness of cost-benefit analysis as an evaluative technique in vocational education is limited by the requirement that benefits, as well as costs, be quantitatively assessed in monetary terms. He suggests that cost-effectiveness analysis is more appropriate since it takes into account noneconomic as well as economic benefits. The author concludes that research pertaining to the effectiveness of vocational education would be enhanced by greater joint efforts on the part of vocational educators and economists.

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Review and Synthesis of Research on the Placement and Follow-up of Vocational Education Students. J. Kenneth Little. Columbus: The Center for Vocational and Technical Education, The Ohio State University, February 1970, 54 pp. (ED 037 543)

The author characterizes the studies reviewed as a cross section of follow-up research reported between 1964 and

1969. Major fields covered in the studies include vocational education at the secondary, postsecondary, and adult levels. Special groups examined by the studies are Manpower Development and Training program graduates, correctional institution inmates, military trainees, the older worker, and program early leavers. One section of this report focuses on follow-up studies of vocational education graduates by program area--agriculture education, distributive education, health occupations, home economics, office occupations, technical occupations, and trade and industrial programs.

Among the findings reported are the following:

- Programs in vocational education are serving important segments of the population in areas not otherwise reached.
- Those who move directly to jobs from vocational training have an advantage in earnings over untrained cohorts.
- Most vocationally trained persons like their jobs, especially if they find jobs for which they have been specifically trained.
- The majority of vocationally trained high school graduates obtain employment near the communities in which they receive their training.
- Graduates obtained their jobs primarily through their own efforts or those of friends and relatives.
- In general, graduates from post-high school training programs have a clear employment advantage over high school program graduates.
- While there is evidence that vocational programs are probably worth their cost, this finding does not hold for all vocational programs in all places or in all fields.

The report concludes with these suggestions:

- Follow-up and placement studies should be a component of the evaluation of educational programs.

- A systems approach should be used in evaluating educational programs, with purposes defined. outcomes described, criteria developed, and research designs adapted accordingly.

- Research is needed on employed persons who have acquired occupational skills and resulting employment through nonschool activities.

- There is a need for more studies in which sophisticated statistical analysis can be applied.

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A Synthesis of Research Findings Which Describe Selected Benefits and Outcomes for Participants in Vocational Education. Doug Sparks. Washington, D.C.: Bureau of Occupational and Adult Education, Office of Education, U.S. Department of Health, Education and Welfare, October 1977, 48 pp. (ED 147 576)

The stated purpose of this study is to identify and explore selected benefits of vocational education. The findings of two categories of studies are explored--major national studies and studies or reports from states or institutional sources. Data reported in these studies were gathered, for the most part, after 1970.

Project Metro, the National Longitudinal Study of the High School Class of 1972, and Project Baseline are among the national studies examined. State and institutional studies and reports reviewed include an Arkansas follow-up study of 1970 graduates from eight high schools, A Five-Year Follow-Up of Students Enrolled in Post-Secondary Vocational-Technical Transfer Programs by Noeth and Hanson, an Ohio school district study, and a Massachusetts study of male high school graduates. Vocational education benefits examined include postsecondary schooling status and economic satisfaction values, viewed in terms of student

satisfaction with education and employment, and employer satisfaction with employees.

The author points out difficulties encountered in interpreting follow-up studies due to arbitrarily set intervals of time used for gathering data from program graduates; inconsistencies in reporting categories from one state to another; in definitions of terms; in sampling techniques; and in nonresponse bias.

With these shortcomings acknowledged, the author offers these conclusions:

- Vocational graduates economically are doing as well as or better than graduates of other curricula.
- Vocational graduates are often more satisfied with their jobs than academic and general graduates.
- Vocational graduates consider their training an important contributing factor to job procurement.
- Vocational students who wish to continue education find openings available to them.
- Vocational education provides assistance to segments of society not adequately served by academic or general education.

Two projects not discussed but noted by the author are The Development of Sample Designs for the Follow-up of Vocational Education Graduates, conducted by Westat Research, Inc. and aimed at providing sample designs to aid states in conducting follow-up studies, and A Study of the Comparison of the Benefits of Secondary and Post-Secondary Vocational Education, conducted by the Montana State Department of Public Instruction to identify the psychological and sociological benefits of vocational education to students.

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What Happens After Training: A Review of Follow-up of Vocational Graduates. Krishan K. Paul. Nashville: Urban Observatory of Metropolitan Nashville and University Centers, September 30, 1976, 35 pp. (ED 140 010)

The follow-up studies of vocational education graduates, published between 1964 and 1975 and reviewed in this document, are arranged into four categories as follows:

- Administrative reports: These are reports required of local, state, or federal administrators which may be based on nationwide or statewide surveys of former vocational students or on less formal inquiry by an instructor of a vocational program. The reports include information about job placement, wages, continuing education, former trainee evaluation of educational and counseling services, and demographics.

- Comparative studies: Research studies which evaluate individual vocational programs by comparing them with other vocational programs or with nonvocational programs are included in this category.

- Cost-benefit analyses studies: Studies are reviewed that evaluate vocational education by calculating costs and benefits in an attempt to measure the increase in welfare or utility as a result of an educational program.

- Procedural studies: This category includes studies related to the development of technology, questionnaires and other instruments, data systems, methodology, and guides and manuals that may be used in carrying out follow-up studies.

The author points out the growing need that states have for follow-up data to measure impact of vocational education on the labor market and the individual trainees. He feels that many of the present studies suffer from procedural and/or conceptual problems such as inadequate data collection and sampling methods, a lack of adequate measures to assess the economic and noneconomic benefits of vocational education, difficulty in separating the impact of nonschool activities from educational or vocational activities, and the need for analysis of the relationship between vocational education and economic cycles.

The report recommends sponsorship and encouragement of research efforts at the regional, state, and national level as an essential part of planning and evaluating the development of human resources necessary for industrial and economic development. Two sample follow-up questionnaires are included at the end of the report--one for surveying former vocational students and the other for assessing employer satisfaction with vocational graduate employees.

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E. Titles of Evaluation Methodology Documents (Category 3)[6]

	Page
Accountability: Evaluation for Occupational Programs. Milo P. Johnson and Albert J. Grafsky, Jr. American Technical Society, 1973.	49
"Criteria Against Which Vocational Education Should Be Held Accountable," Grant Venn, in Interpreting Outcome Measures in Vocational Education: A Final Report. Floyd L. McKinney and others. The National Center for Research in Vocational Education, The Ohio State University, 1979.	50
The Economic Evaluation of Vocational Training Programs. Manuel Zymelman. The Johns Hopkins University Press, 1976.	51
Educational Evaluation and Decision Making. Daniel L. Stufflebeam and others. F. E. Peacock Publishers, Inc., 1971.	51
Evaluating Occupational Education and Training Programs. Tim L. Wentling and Tom E. Lawson. Allyn and Bacon, Inc., 1975.	52
"Evaluating Vocational Education and Technical Programs," Jerome Moss, Jr. and Ernst W. Stromsdorfer. Chapter 9 in Vocational Education Today and Tomorrow, edited by Gerald G. Somers and Kenneth Little. Center for Studies in Vocational and Technical Education, University of Wisconsin, 1971.	53
Evaluating Vocational Education: Polices and Plans for the 1970s.With an Annotated Bibliography. Leonard A. Lecht. Praeger Publishers, 1974.	54
Evaluation of Occupational Education Programs. Jerome Moss, Jr. University of Minnesota, Research Coordination Unit in Occupational Education, September 1968.	55

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[6]Complete bibliographic citations for these titles, along with supplementary information, are provided with annotations on the pages that follow.

Page

Evaluation of Vocational Technical Education. Phase II. New Educational Directions, Inc. The Indiana State Board of Vocational Technical Education, May 1976. 56

"Evaluation Research in Vocational Education," J. Robert Warmbrod. Beacon, American Vocational Education Research Association, January 1977. 57

A Model for Evaluating Programs in Vocational Education for the Handicapped. Final Report. Gerald Bekker and James E. Christianson. College of Education, Texas A&M University, August 1975. 58

Practices in Program Evaluation: A Survey and Some Case Studies. Samuel Ball and Scarvia B. Anderson. Educational Testing Service, October 1975. 58

System for Statewide Evaluation of Vocational Education. Final Report. Harold Starr and Richard A. Dieffenderfer. The Center for Vocational and Technical Education, The Ohio State University, May 1972. 59

F. Annotations of Evaluation Methodology Documents (Category 3)

Accountability: Evaluation for Occupational Programs. Milo P. Johnson and Albert J. Grafsky, Jr. Chicago: American Technical Society, 1973, 101 pp. (ED 087 902)

This report addresses the development and utilization of accountability in occupational education and details a variety of methods for measuring educational output and "revising strategies" for improvement. Accountability is defined as "the ability to demonstrate cost-effectiveness (efficient use of resources) in meeting predetermined educational philosophy and goals, (1) when using verified objectives, (2) when serving well-identified students, and (3) when taking into consideration constraints relative to school, course, group of students, and community."

Fifteen goals of the occupational education accountability system are listed and guidelines are offered for preparing goals and objectives for accountability based on a foundation of philosophy. Six measures of instructional output for occupational education are discussed and listed as follows:

- Completion based on passing required minimum work as set forth in the teacher's course outline
- Completion based on measurable objectives which establish minimum standards of acceptable performance
- Units of credit plus grades--each based on measurable objectives and grading criteria
- Completion with the student being adequately trained for employment
- Placement in paid employment in occupation for which training was received
- Follow-ups within first year of graduation, including employer rating of the performance of the student graduate on the job

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"Criteria Against Which Vocational Education Should Be Held Accountable," Grant Venn. In Interpreting Outcome Measures in Vocational Education: A Final Report, Floyd L. McKinney, Kenney E. Gray, and Marie Abram. The National Center for Research in Vocational Education, The Ohio State University, 1979.

The author of this chapter suggests that traditional criteria for accountability in vocational education are not relevant to the future and that the continued use of these criteria will result in decreasing the effectiveness of vocational education as a means of preparing individuals for future work just at a time when preparation for work is necessary for everyone and when many are facing changes in work roles. In selecting criteria for accountability, the following points are suggested for consideration:

- Criteria should be relevant to the individual's needs as well as to changing societal problems.
- A search for specific criteria that can be certified "to be right" may prevent the search for more appropriate criteria.
- Criteria selected for accountability in response to student needs, societal problems, and employer concerns are necessary before the evaluation process can be determined.

Four broad categories of criteria were identified as follows: (1) Instructional and program quality; (2) Program relevance to individual and societal needs in relation to work; (3) Program impact on organization, policy, support, and usage of vocational education; and (4) Individual transition to and growth in the work world.

Venn suggests that if these broad areas for criteria of accountability seem appropriate, a national effort to define more specific criteria should be undertaken by a group composed of employers, parents, students, teachers, administrators, policy makers, and legislators.

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The Economic Evaluation of Vocational Training Programs. Manuel Zymelman. World Bank Staff Occasional Paper: No. 21. Baltimore: The Johns Hopkins University Press, 1976, 122 pp.

The author states that the purpose of this study is to provide a methodology for the assessment of vocational training programs that will enable policymakers to evaluate proposals for vocational schools or other forms of training and thereby to choose the most effective program for a particular situation. In particular, the study represents an effort to increase the efficiency of educational and training systems in developing countries.

Advantages and disadvantages of on-the-job, off-the-job, and combined types of training programs are discussed in Chapter 2. A theoretical analysis of factors influencing the choice of a mode of training in Chapter 3 includes a discussion of the economic factors affecting the cost of training. Chapter 4 furnishes data on programs in vocational schools in regard to hours spent in classrooms and in various laboratories, transferability of theoretical and practical instruction, and cost of laboratory equipment in 1972. Appendix B provides an analytic framework and a checklist of variables for reviewing evaluations of vocational training, and Appendix C provides a review of studies evaluating vocational training in the United States and abroad.

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Educational Evaluation and Decision Making. Daniel L. Stufflebeam, Walter J. Foley, William J. Gephart, Egon G. Guba, Robert L. Hammond, Howard O. Merriman, and Malcolm M. Provus. Itasca, Illinois: F. E. Peacock Publishers, Inc., 1971, 368 pp.

Used as an education evaluation text, this book has four stated purposes:

- To expose five evaluation problem areas--definition, decision-making, values and criteria, administrative levels, and the research model
- To identify and assess existing formulations that may be useful in conceptualizing solutions to the five problems
- To use the existing information to synthesize a new definition and methodology of evaluation
- To provide guidelines for implementing the proposed new approach to evaluation

The authors note that an effective and efficient evaluation requires a team effort: "The book is directed at those who commission the development of evaluation units, operate the units, use the information produced by the units, comprise evaluation teams, produce methods and materials for use in evaluation units, and train staff for work in evaluation units."

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Evaluating Occupational Education and Training Programs. Tim L. Wentling and Tom E. Lawson. Boston: Allyn and Bacon, Inc., 1975, 355 pp. (ED 109 449)

Designed to serve as a program evaluation handbook and guide, this book addresses teachers and administrators of occupational education in public elementary, secondary, and post-secondary programs as well as administrators and personnel connected with private instructional programs in schools and in industrial programs. The methodology described, however, is also adaptable to the evaluation of academic programs.

The introductory chapter summarizes the history of evaluation and presents two current, widely accepted definitions of evaluation--the decision-oriented definition (Phi Delta Kappa Committee on Evaluation) and the evaluator judgment definition (Worthen and Sanders).

Chapters 3 through 8 provide specific evaluation procedures for student assessment, student follow-up, consultative team evaluation, personnel evaluation, and cost analysis.

Individual chapters provide specific evaluation activities and example forms and instruments to aid in the evaluation process. The concluding chapter presents a general overview of how changes occur within education programs and how evaluation can be used to effect change and improve programs.

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"Evaluating Vocational Education and Technical Programs," Jerome Moss, Jr. and Ernst W. Stromsdorfer. Chapter 9 in Vocational Education Today and Tomorrow. Edited by Gerald G. Somers and Kenneth Little. Madison: University of Wisconsin, Center for Studies in Vocational and Technical Education, 1971, 221 pp.

This chapter treats program evaluation as a process to determine the relative efficiency of a set of activities designed to attain desired outcomes. The process requires (1) that comparison between the outcomes of two or more sets of activities be made and (2) that differences found be attributable to variations in the program activities. The model, then, for evaluating the efficiency and effectiveness of vocational education should examine alternative processes which may produce the desired outputs; and it should determine which process is the more efficient. Evaluation characterized by this model is quantitative, directed at program purposes, and links costs with benefits.

The problems associated with specification and measurement of input variables--student inputs, educational process inputs, and socioeconomic influences--are discussed, as are the problems associated with specification and measurement of program output and estimation of net effects of programs.

The remainder of the chapter describes and reviews several kinds of noneconomic studies of vocational education outcomes and economic studies of vocational education and manpower training programs.

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Evaluating Vocational Education: Policies and Plans for the 1970s. With an Annotated Bibliography. Leonard A. Lecht. New York: Praeger Publishers, 1974, 194 pp. (ED 123 395)

This book, concerned with policy issues and related analytical problems involved in the evaluation of vocational education, is based on a study undertaken by the National Planning Association for the U.S. Office of Education and the National Advisory Council of Vocational Education. The author points out that between 1965 and 1970 the federal share of the total expenditure for vocational education decreased from 29 per cent to 16 per cent and speculates on the future role of the federal government in determining priorities if support continues to decrease.

Reasons for data gaps and inconsistencies in vocational education enrollment and student socioeconomic background information as reported in several national studies are discussed in Chapter 2. Subsequent chapters address the need for relating projected manpower needs to accurate data of enrollment in vocational programs in order to provide better planning information for both students and program administrators. Advantages and disadvantages of substituting revenue sharing for the grants system in distributing federal aid to vocational education are discussed in Chapter 5.

The final chapter is based on Ernst W. Stromdorfer's report, "The Methodology of Major Studies with Illustrations." Stromsdorfer points out that since many evaluative studies of vocational education do not employ accurate models for determining marginal costs, they fail to recognize distinctions between marginal and average costs and benefits. The model is quantitative and directly related to the specific purpose served by the program being evaluated.

- It examines the nature of the output process of competing programs.
- It determines which program and program output process is most efficient.

The model requires the following steps: (1) Specification of program objectives; (2) Specification of processes or activities and the production function or process; (3) Specification of cost function or cost relationship based upon the production function for each activity; (4) Specification of benefit functions based upon a set of indexes designed to measure program output; and (5) Comparisons of costs and benefits.

According to Stromsdorfer, the production function or process is a critical concept in any program evaluation since it is through understanding how program inputs affect outputs that rational changes in program structure can be made. The author of this chapter, Michael Carbine, contends that vocational education, particularly at the secondary level, should not be concerned merely with efficiency since the question of equity may thereby be ignored. Data drawn from the National Longitudinal Survey and studies by Hu, Fernbach and Somers, Eninger (Metro I and II), and others are used to discuss such issues as vocational education and earnings and employment, socialization, further education, remaining in school, and postsecondary and secondary programs.

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Evaluation of Occupational Education Programs. Jerome Moss, Jr. Minneapolis: University of Minnesota, Research Coordination Unit in Occupational Education, September 1968, 22 pp.

To provide a conceptual framework for evaluation of vocational education programs, the author discusses these eight dimensions of program evaluation: (1) The importance of program evaluation; (2) Some causes of past inactivity in evaluation; (3) A definition of program evaluation; (4) Program outcomes (or evaluative criteria); (5) Program characteristics; (6) Two roles of program evaluation; (7) Evaluation as a part of the educational change process; and (8) Some research approaches to evaluation. Related topics discussed include formative evaluations, follow-ups, experiments, interrupted time series, and analysis of regression.

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Evaluation of Vocational Technical Education. Phase II. New Educational Directions, Inc. Indianapolis: The Indiana State Board of Vocational Technical Education, May 1976, 17 pp.

The vocational-technical education evaluation model described in this document is designed for use at the individual program level and consists of 13 main components as follows:

(1) Descriptive Information

(2) Demonstration of Need

(3) Student Recruitment and Selection

(4) Curriculum

(5) Guidance and Placement

(6) Facilities

(7) Program Staffing and Administration

(8) Community Involvement

(9) Youth Organizations

(10) Cooperative Programs

(11) Program's Effects on Students

(12) Holding Power and Popularity

(13) Satisfaction of Various Audiences with Program

Each component, broken down into subcomponents, consists of a general rationale for evaluating that aspect of the vocational program, suggestions for approaches to investigation, and recommendations for research and development.

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"Evaluation Research in Vocational Education." J. Robert Warmbrod. Beacon, Vol. 6, No. 1, January 1977, 6 pp.

In his 1976 presidential address before the American Vocational Education Research Association, reprinted in Beacon, the Association's newsletter, Warmbrod proposes a comprehensive analysis and critique of recent state, regional, and national studies that "purport to investigate the effectiveness of vocational education in the secondary and postsecondary schools." Such a review should address the following questions:

- What are the specific strengths and weaknesses of the design?
- To what extent do the instruments and procedures used minimize measurement error?
- Are the findings valid?
- To what populations and programs can the valid findings be generalized?

Whether vocational education is viewed as a function of the total school program or as only a segment of the school program must be considered in designing and conducting evaluation studies. Evaluation of a school's occupational education function is considered to be the description and explanation of a series of outcome variables in terms of a variety of input variables such as initial abilities and motives of students, family and community characteristics and values, school resources and policies, peer groups, the nature of the instructional program, and experiences of students in school and out of school.

When the outcome variables relate to labor market entry and performance, factors over which the school has little control (economic conditions, employment practices, mobility and migration of students) need to be considered. The appropriate research methodology is described as a "naturalistic correlational method with regression analysis and other multivariate techniques the major statistical strategies for attempting to partial out the influence of the various inputs on the criterion measures."

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A Model for Evaluating Programs in Vocational Education for the Handicapped. Final Report. Gerald Bekker and James E. Cristiansen. College Station: College of Education, Texas A&M University, August 1975, 179 pp. (ED 115 984)

The stated purpose of this study is to develop an evaluation model for use in determining the effectiveness of pilot programs in vocational education for the handicapped and to field test the developed model by conducting evaluations of 16 pilot programs in schools and state hospitals in Texas. A four-member evaluation team consisting of individuals knowledgeable in vocational education or in the field of special education for the mentally retarded collected data by on-campus visits.

The model was found to provide useful decision-making information for comparisons on either a "program by program" or "institution by institution" basis; however, goal concepts used in the model were found to be more applicable to vocational education programs in public secondary and postsecondary institutions than to the pilot programs in state schools and hospitals. The model development process, test procedures, and findings are detailed in the report; and sample questionnaires used in the study and related computer program information are included.

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Practices in Program Evaluation: A Survey and Some Case Studies. Samuel Ball and Scarvia B. Anderson. Princeton: Educational Testing Service, October 1975, 152 pp. (ED 115 680)

This report is the second of a three-phase series to study and improve theory and practice of training/education program evaluation. Phase Two consists of two related research activities directed at collecting data about actual practices of program evaluation in various settings: the surveying of 200 adult education/training programs which had undergone some kind of program evaluation, and case studies of 14 programs (including site visits) judged to have undergone the best evaluations.

The 200 program evaluations were divided equally among four types of sponsoring agencies--Department of Defense; other

federal government departments and agencies; state and local governments and agencies, including junior/community colleges; and private business and industrial organizations. Approximately 70 percent of the programs had been formally evaluated, usually for the purpose of program improvement rather than to assess program impact. The formal evaluation typically had consisted of questionnaires and interviews of students and teachers; and these evaluations usually had been called for, funded, and carried out by internal rather than external agencies. Written evaluation reports were rare, and written evaluation reports available to outsiders were even more rare.

The first phase of this three-phase series resulted in the publication of the book, Encyclopedia of Educational Evaluation, which presents in nontechnical language the major concepts and practices in education evaluation. The third phase resulted in Professional Issues in the Evaluation of Education/Training Programs, Ball and Anderson, October 1975 (ED 115 681). Characterized as a "codification of evaluation principles" and a framework for appropriate evaluation practices, this publication provides evaluators and those who commission evaluations with checklists for a systematic approach to evaluation. Checklists are included for common purposes of evaluation and appropriate methods of investigating each, sources of evidence, types of administrative relationships, audiences for dissemination of results, value orientations of evaluators, competencies needed by evaluators, and ethical responsibilities of evaluators and related groups.

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A System for Statewide Evaluation of Vocational Education. Final Report. Harold Starr and Richard A. Dieffenderfer. Columbus: The Center for Vocational and Technical Education, The Ohio State University, May 1972, 178 pp. (ED 066 561)

This publication describes an evaluation system designed to assist state divisions of vocational education in cooperation with local school systems in assessing the effectiveness of vocational education programs. System components can be modified by vocational agencies in the states to meet special needs in collecting data about local program characteristics, student status and characteristics, and student follow-up in terms of outcome measures. Charts, forms, and tables illustrate the system's potential for collecting data. Also included is an envelope of evaluation instruments designed for use in the state evaluation.

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G. Titles of Empirical Studies Focusing on Vocational Education Topics Other than Outcomes (Category 4)[7]

	Page
Education for a Changing World of Work: Report of the Panel of Consultants on Vocational Education. U.S. Department of Health, Education, and Welfare, Office of Education, 1963, reprinted 1964.	61
Education for a Changing World of Work. Appendix 1. Technical Training in the United States. Lynn A. Emerson. U.S. Department of Health Education, and Welfare, Office of Education, 1963.	62
Education for a Changing World of Work. Appendix 2. Manpower Farming and Related Occupations. C. E. Bishop and George S. Tolley. U.S. Department of Health, Education, and Welfare, Office of Education, 1963.	63
Expectations and Satisfactions of Parents and Students with Vocational and Technical Education. Statewide Evaluation of Vocational-Technical Education in Florida. Volume 4. Gordon S. Purrington. Florida State University, 1972.	63
Notes and Working Papers Concerning the Administration of Programs Authorized Under Vocational Education Act of 1963. Public Law 88-210, as Amended. U.S. Congress, Senate, Committee on Labor and Public Welfare, 1968.	64
Training America's Labor Force: Potential, Progress, and Problems of Vocational Education. Report to the Congress. U. S. General Accounting Office, 1972.	65
What Is the Role of Federal Assistance for Vocational Education? Report to the Congress. U.S. General Accounting Office, 1974.	66

[7]Complete bibliographic citations for these titles, along with supplementary information, are provided with annotations on the pages that follow.

H. Annotations of Empirical Studies Focusing on Vocational Education Topics Other than Outcomes (Category 4)

Education for a Changing World of Work: Report of the Panel of Consultants in Vocational Education (CE-80021). U.S. Department of Health, Education, and Welfare, Office of Education. Washington, D.C.: U.S. Government Printing Office, 1963, Reprinted 1964, 196 pp. (ED 019 500)

In 1961 a Panel of Consultants was appointed by the Secretary of Health, Education, and Welfare and charged with the responsibility of reviewing and evaluating the national vocational education acts in order to make recommendations for improving and redirecting training for industry, agriculture, and other occupational areas. The Panel consulted various specialists, commissioned studies, and convened a number of special conferences on the educational aspects of national manpower resources and requirements, the results of which are recorded in this publication.

Federally reimbursed vocational training in the public schools in 1961 were found to consist of courses in agriculture, trade and industry, home economics, distribution, practical nursing, fishery, and technical education. Support service areas included occupational information, vocational guidance, supervision and teacher training, research, youth organizations, instructional materials and administration. In studying the training programs and services in vocational education, the Panel found that use of federal funds for occupational information and vocational guidance was extremely limited. Research had been sporadic and uncoordinated and directed chiefly toward program operation. The federal level of administration in vocational education had changed in 45 years from direct responsibility to the President of the United States to the fourth level of administration in the Department of Health, Education, and Welfare. Additionally, a need was felt for instructional materials in vocational education programs.

In reporting limitations, the Panel pointed out that vocational education was not sufficiently responsive to labor force demands. It was not available in many schools; training choice was limited; placement services to graduates were not adequate; and standardized reporting procedures were needed. The Panel also pointed out that the contributions of vocational education in international programs were small in comparison to probable need, and vocational educators were not generally involved in the initial planning for economic aid to other nations.

The Panel's recommendations were grouped under three "need for change" categories:

- Vocational education must be made available to all people who have the need, the desire, and the ability to benefit from such instruction.
- Education for occupational competency should be carefully correlated with the possibility of employment.
- An evaluation committee of competent authorities should report the strengths, limitations, and weaknesses of the vocational training program.

The Panel further recommended that since occupational categories are no longer isolated from each other, funding and administration restrictions should not be permitted to prevent expansion of course content, combination of courses, or elimination of courses when such changes may provide a better training program.

The Panel concluded that vocational education and general education are complementary and equally important to individual occupational competence and that expanded vocational education, apprenticeship, and technical training are especially needed to prepare both new workers and the unemployed to fill job openings for skilled or specialized workers. Stimulus and support of vocational and technical education were viewed by the Panel as part of the federal government's responsibility in equalizing educational opportunities and in providing the skilled manpower needed by the nation's economy.

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Education for a Changing World of Work. Appendix 1: Technical Training in the United States. Lynn A. Emerson. Washington, D.C.: U.S. Department of Health, Education, and Welfare, Office of Education, 1963, 170 pp. (ED 019 502)

Appendix 1 to the report of the Panel of Consultants deals with the status of technical education in the United States in 1961. The technician is described as a worker giving technical support to and performing many of the tasks of the engineer. The Appendix lists various technical occupations

and tasks performed by technicians and describes programs used for providing trained technicians to meet the needs of industry. Specific recommendations are made related to the type of institution in which technical training is offered. General recommendations for legislation in the field of technical education are included.

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Education for a Changing World of Work. Appendix 2: Manpower Farming and Related Occupations. C. E. Bishop and G. S. Tolley. Washington, D.C.: U.S. Department of Health, Education, and Welfare, Office of Education, 1963, 51 pp. (ED 019 501)

Appendix 2 to the report of the Panel of Consultants discusses the effects of economic progress on the structure of the agricultural industry in 1961, the amount and quality of human resources employed in farming and related occupations, and educational implications of these changes. Decrease in number of farms and increase in agricultural technology resulting in lower demand for farm labor, led to projections of continued reduction in farm population into the 1980s. Trends with implication for agricultural education include the need for more highly trained farmers with managerial ability and agricultural curricula that reflect technological and occupational changes.

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Expectations and Satisfactions of Parents and Students with Vocational-Technical Education. Statewide Evaluation of Vocational-Technical Education in Florida. Volume 4. Gordon S. Purrington. Tallahassee: Florida State University, 1972, 67 pp. (ED 074 225)

This study, one of a series of studies conducted in the "Statewide Evaluation of Vocational-Technical Education in Florida," examines the expectations and satisfactions of students and their parents with secondary and postsecondary levels of education in traditional public schools, vocational centers, and in a community college.

An analysis of data gathered from students of ten participating schools and the students' parents revealed that both students of vocational-technical centers and their parents supported these schools and were more satisfied with the educational experiences offered there than were students of the traditional high school and their parents. General support from all groups for vocational programs, particularly in the area of vocational guidance, led to the conclusion that greater emphasis should be placed on vocational guidance in the traditional high school.

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Notes and Working Papers Concerning the Administration of Programs Authorized Under Vocational Education Act of 1963, Public Law 88-210, as Amended. U.S. Congress, Senate, Committee on Labor and Public Welfare, Subcommittee on Education. Washington, D.C.: U.S. Government Printing Office, March 1968, 423 pp. (ED 021 151)

Under the provisions of the Vocational Education Act of 1963, the Advisory Council on Vocational Education was directed to review the administration and status of vocational education programs and to make recommendations for their improvement. The report Vocational Education: The Bridge Between Man and His Work is divided into three parts (all contained in Notes and Working Papers Concerning the Administration of Programs). Part 1 is a summary of the general report contained in Part 2, and Part 3 includes recommendations adopted from the general report. The theme throughout the final section is "Never before has attention to the individual as a person been so imperative."

There were 26 specific recommendations for legislation, including the following:

- Combine all federal vocational education acts administered by the Office of Education
- Establish a Department of Education and Manpower Development at cabinet level
- Provide funds for the Commissioner of Education to make grants to or contracts with state boards and other public or nonprofit private agencies

for planning, development, and operation of exemplary and innovative programs for occupational preparation

- Provide funds and require the Office of Education to be responsible for collecting data and preparing an annual descriptive and analytical report on vocational education to be submitted to the President and Congress
- Provide that each state conduct a periodic statewide review and evaluation of its vocational education program
- Include within the definition of vocational education "pre-vocational" education and "employability skills"
- Expand the definition of vocational education in the act to include the responsibility of education for initial job placement and follow-up
- Establish two to four centers for curriculum development in vocational education.

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Training America's Labor Force: Potential, Progress, and Problems of Vocational Education. Report to the Congress. U.S. General Accounting Office, Washington, D.C., 1972, 47 pp. (ED 047 208)

This document contains the findings, conclusions, and recommendations resulting from the investigation in 1972 by the General Accounting Office of high school and community college vocational education programs in California, Michigan, Ohio, and Pennsylvania. These four states, having received 22 per cent of the vocational education funds alloted to the states in 1972, were reviewed to determine whether or not legislative objectives were being met and to identify major problems. Topic headings under which information is reported include "Vocational Education Not Reaching All Who Need It," "Funds Targeted for the Disadvantaged Miss the Mark," and "Management Information Incomplete and Inaccurate."

Among the recommendations made to HEW are the following:

- HEW should coordinate federal and state efforts to define the information needed to evaluate program results adequately.
- Research should be undertaken regarding the exact nature and extent of the funding and image problems attached to vocational education in order to determine what action is required to achieve more fully the objectives of the Vocational Education Act.
- Regional offices should closely monitor the use of federal funds for special programs and services for the disadvantaged to ensure that funds are being used properly.

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What Is the Role of Federal Assistance for Vocational Education? Report to the Congress. U.S. General Accounting Office, Washington, D.C., 1974, 123 pp. (ED 105 132)

To review implementation of vocational education programs in 1973 at national, regional, state, and local levels, the General Accounting Office undertook this in-depth study in seven states--California, Kentucky, Minnesota, Ohio, Pennsylvania, Texas, and Washington. The study focused on these questions: (1) What role does the federal dollar play? (2) How is vocational education planned? (3) How are federal vocational funds distributed? (4) How are training resources used? (5) Is training related to employment?

Among the recommendations submitted to the Secretary of the Department of Health, Education, and Welfare are the following:

- HEW should develop with the states an improved approach to planning which will better meet state needs and provide necessary information to monitor and evaluate federal program expenditures.

- HEW should expand its efforts to enforce the requirement that all local and state education agencies, in planning vocational programs, identify the needs of students and those of public and private business, industry, and labor. These needs should be considered the primary basis for decision making in the provision of vocational services supported by the Vocational Education Act.

- HEW should increase its efforts in the development of vocational information systems that will provide comparable data and should continuously review utilization of that data to improve vocational education.

- HEW should analyze actual state practices in distribution of federal funds to determine consistency with the law's criteria.

- HEW should assist states in identifying and implementing strategies in order to eliminate barriers which inhibit improvement or expansion of vocational programs and which restrict persons from fully participating.

- HEW should implement provisions of Title IX of the Education Amendments of 1972 to eliminate sex discrimination in vocational education, particularly by encouraging the use of techniques that have proved effective in recruiting members of one sex to occupations traditionally considered the prerogative of the other sex.

The following recommendations were made to the Congress for consideration in deliberations on the Vocational Education Act:

- Require federal funds to be directed to programs for which existing or anticipated job opportunities can be demonstrated

- Require work experience to be an integral part of the basic grant programs, to the extent that it is feasible

- Require schools to take responsibility for job-placement assistance and follow-up

It was further recommended that Congress (1) amend provisions of the Higher Education Act of 1965 so that students without a high school diploma or equivalent would be able to take advantage of federal grant and loan programs for post-secondary schools and (2) consider amending the Vocational Education Act to remove restrictions limiting vocational education opportunities to those in or above ninth grade since not all handicapped youth are able to reach the secondary level.

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I. Titles of Miscellaneous Documents (Category 5)[8]

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Career Intern Program: Final Report. Volume 1: An Experiment in Career Education that Worked. Michael Langsdorf and Richard A. Gibboney. U.S. Department of Health, Education, and Welfare, National Institute of Education, May 1977.	71
Education Amendments of 1976. Public Law 94-482. Ninety-fourth Congress, October 12, 1976.	71
Education Amendments of 1976 and Their Implications for Vocational Education. William W. Stevenson. The Center for Vocational Education, The Ohio State University, 1977.	73
Education and Job Satisfaction: A Questionnable Payoff. Robert P. Quinn and Martha S. Baldi de Mandilovitch. U.S. Department of Health, Education, and Welfare. The National Institute of Education, March 1977.	74
Equality of Educational Opportunity. James S. Coleman and others. National Center for Educational Statistics, 1966.	75
Equality of Educational Opportunity, Reconsidered. James S. Coleman. Johns Hopkins University, 1967.	76
Evaluation of the Cumulative Effects of Research for Better Schools Career Education, 1974-1976. Thomas W. Biester. Career Education Program, August 31, 1976.	76
Factors Related to the Coordination and Effectiveness of Occupational Education Programs. Final Report. John T. Pelham. Social Science Research Center, Mississippi State University, August 10, 1972.	77
Hearings Before the Subcommittee on Elementary, Secondary, and Vocational Education of the Committee on Education and Labor. Volume 1. House of Representatives, Ninety-fourth Congress, First Session on H.R. 19 and Related Bills to Amend the Vocational Education Act of 1963, February and March 1975.	78
Hearings Before the Subcommittee on Elementary, Secondary, and Vocational Education of the Committee on Education and Labor. Volume 2. March, April, May, and June 1975.	79

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[8]Complete bibliographic citations for these titles, along with supplementary information, are provided with annotations on the pages that follow.

Page

How Effective is Schooling? A Critical Review and Synthesis of Research Findings. Harvey A. Averch and others. Rand Corporation, March 1972. 79

Identifying Handicapped Students and Their Vocational Needs for 1977-1982. Marion E. Franken. Wisconsin Vocational Studies Center, University of Wisconsin, July 1977. 80

Manpower Economic Education and the Transition from School to Work. Robert L. Darcy and others. The Center for Economic Education, Colorado State University, February 1974. 81

Philosophy for Quality Vocational Education Programs. Fourth Yearbook of the American Vocational Association. Edited by Melvin L. Barlow. The American Vocational Association, Inc., 1974. 81

RBS Career Education, 1975-1976: Within-Model Evaluation Report. Thomas W. Biester. Research for Better Schools, Inc., August 31, 1976. 82

Rural Oriented Research and Development Projects: A Review and Synthesis. R&D Monograph 50. U.S. Department of Labor, Employment and Training Administration, 1977. 83

Sex Fairness in Career Education. Marla Peterson and Louise Vetter. The Center for Vocational Education, The Ohio State University, 1977. 83

Sex Fairness in Vocational Education. John R. Schenck. The Center for Vocational Education, The Ohio State University, 1977. 84

A Study of Our Nation's Schools. George W. Mayeske and others. U.S. Department of Health, Education, and Welfare, Office of Education, 1972. 85

Vocational Education for the Handicapped: A Bibliography of ERIC Documents. Paul E. Schroeder. The Center for Vocational and Technical Education, The Ohio State University, 1973. 85

Vocational Education for the Handicapped: A Review. Marc E. Hull. The Center for Vocational Education, The Ohio State University, 1977. 86

Youth: Transition to Adulthood (Report of the Panel on Youth of the President's Science Advisory Committee). James S. Coleman and others, University of Chicago Press, 1974. 86

J. Annotations of Miscellaneous Documents (Category 5)

Career Intern Program: Final Report. Volume 1: An Experiment in Career Education That Worked. Michael Langsdorf and Richard A. Gibboney. NIE Papers in Education and Work: No. 7. Washington, D.C.: U.S. Department of Health, Education, and Welfare, National Institute of Education, May 1977, 217 pp. (ED 142 795)

The Career Intern Program (CIP) was initiated by the Opportunities Industrialization Centers of America, Inc., with support for development and evaluation from the U.S. Office of Education and the National Institute of Education. The Career Intern Program is described as combining basic and career education for high school youth who are not succeeding in regular school. In addition to discussing the education problems of the program, the report deals with the effort to link formative and summary evaluation to program development and utilization.

Technical aspects of the evaluation design with a description of the instruments used and a discussion of the data analysis procedures are contained in a separate volume cited below.

Career Intern Program: Final Report. Volume II. Technical Appendices. Richard A. Gibboney Associates, Inc. NIE Papers in Education and Work: No. 7. Washington, D.C.: U.S. Department of Health, Education, and Welfare, National Institute of Education, May 1977, 231 pp. (ED 145 231)

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Education Amendments of 1976, Public Law 94-482. U.S. Congress. Washington, D.C.: U.S. Government Printing Office, October 12, 1976.

The stated purpose of Title II (Vocational Education) of the Education Amendments of 1976 is as follows: (1) to extend, improve, and, where necessary, maintain existing programs of vocational education; (2) to develop new programs of vocational education; (3) to develop and carry out programs of vocational education within each state that will overcome sex discrimination and sex stereotyping in vocational education programs; and (4) to provide part-time employment for youths who need the earnings in order to continue their vocational training on a full-time basis.

Among the salient features of the Amendments are the following:

- Each state must assign full-time personnel to assist in reducing sex discrimination and sex stereotyping in vocational education programs and activities. Each state is to expend $50,000 from the basic grant for this purpose.

- Each state shall increase its advisory council from 12 to at least 20 members appropriately representing special groups.

- Each state must maintain on file with the Commissioner of Education a general application containing twelve assurances covering a broad range of administrative and fiscal matters. The application includes the assurance that the state will give priority in distributing funds to economically depressed areas and areas with high unemployment, to programs which are new to the area, and to local education agencies with a high concentration of low-income populations.

- At least 10 per cent of the state's allotment is to be used to pay up to 50 per cent of the costs of special programs, services, and activities for the handicapped; and at least 20 per cent of the state's allotment is to be used to pay up to 50 per cent of the costs of special programs, services, and activities for the disadvantaged, for persons with limited English-speaking ability, and for stipends for students with acute economic needs which cannot be met under other programs.

- In program evaluation, employer feedback on the training preparedness of individuals shall be considered as well as placement data.

- The state must use 20 per cent of its allotment for program improvement and supportive services such as research, innovative programs, and curriculum development programs.

- The state must use funds for programs in consumer and homemaking education. The federal share is 50 per cent except in economically depressed areas where it shall be 90 per cent.

- There must be a greater coordinated effort involving secondary, postsecondary, adult education, area vocational centers, and CETA programs.

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Education Amendments of 1976 and Their Implications for Vocational Education. Information Series No. 122. William W. Stevenson. Columbus: The Center for Vocational Education, The Ohio State University, 1977, 21 pp. (ED 149 191)

This information analysis paper, examining the Education Amendments of 1976, focuses on the areas of special legislative emphasis that are expected to bring about the greatest change in vocational education. Topics receiving special attention include coordination with CETA; compliance with Public Law 94-142, the Education for All Handicapped Children Act; planning, information systems, and evaluations; elimination of sex bias and sex stereotyping; and special groups--disadvantaged, handicapped, and English-deficient.

The author suggests that the legislation is an indication that "Congress is no longer satisfied with a vocational education program that accurately reflects the labor market with all its exclusions, restrictions, and traditions" and speculates on the potential for changing the work place by changing the training programs which prepare students for work.

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Education and Job Satisfaction: A Questionable Payoff.
Robert P. Quinn and Martha S. Baldi de Mandilovitch. NIE Papers in Education and Work: No. 5. Washington, D.C.: U.S. Department of Health, Education, and Welfare, The National Institute of Education, March 1977, 69 pp. (ED 129 702)

This report examines (1) the assumption that the better the education, the greater the chances of securing a desirable, satisfying job and (2) the social and psychological processes that may link education and job satisfaction. Sources of information used for the study include sixteen previously published research reports bearing either directly or indirectly on the relationship between education and job satisfaction and secondary analyses of nine national surveys designed for purposes other than understanding the relationship between education and job satisfaction.

Five of the sixteen studies found a positive association between education and job satisfaction, three found a negative association, and eight reported the relationship to be either nonexistent or equivocal. Analyses of the nine national surveys found no increment in job satisfaction with succeeding years of education. However, while no relationship was found between education level and job satisfaction among workers who had not gone to college, those who had obtained college degrees were consistently more satisfied with their jobs than were employees without degrees. All but one of the surveys identified "credentials effect," evidence that there was no payoff in job satisfaction from having college training unless one also received a college degree. Level of education was significantly and positively related to overall quality of employment, and the greatest increment in quality of employment occurred at those points where educational credentials were conferred.

The report concludes with several recommendations for further research and for policy changes on the part of employers and educators. Among the recommendations for policy changes are the following:

- Employers and educators should be aware of the occupational needs of the over-educated.
- The educational requirements established for jobs should be re-examined.
- Job design, where possible, should take into account the increasing education level of the labor force.

- Educators should place greater emphasis on general skills, anticipating the many job changes in life.
- Training for specific jobs should be reserved until it becomes necessary for the worker to receive such training.
- Educators should not justify "every unpleasant thing in school" as essential for securing a good job.

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Equality of Educational Opportunity. James S. Coleman, Ernest W. Campbell, Carol J. Hobson, James McPartland, Alexander M. Mood, Frederic D. Weinfeld, and Robert L. York. Washington, D.C.: National Center for Educational Statistics, 1966, 746 pp. (ED 012 275)

This volume, the product of an extensive survey requested in the Civil Rights Act of 1964, reports on educational opportunities in public schools for minority groups--Blacks, American Indians, Oriental Americans, Puerto Ricans, and Mexican Americans. The survey addresses four major questions:

(1) To what extent are the racial and ethnic groups segregated from one another in the public schools?

(2) Do schools offer equal educational opportunities according to criteria regarded as good indicators of educational quality?

(3) How much has the student learned as measured by performance on standardized tests?

(4) What is the relationship, if any, between students' achievement and the kinds of schools attended?

James Coleman of Johns Hopkins University held the major responsibility for the design, administration, and analysis of the survey, which was carried out by the National Center for Educational Statistics.

Initial findings from analysis of the data indicated that Black students and teachers were frequently segregated from their white counterparts. Additionally, with integration, the average minority student's test scores improved. However, the authors, acknowledging that the various groups of students might have been from different backgrounds, noted that this possibility had not been taken into account.

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Equality of Educational Opportunity, Reconsidered. James S. Coleman. Baltimore: Johns Hopkins University, 1967, 19 pp. (ED 015 893)

In examining the concept of equal educational opportunity, Coleman points out the need to consider intensity of the effects of school resources as well as the equality of the distribution of these resources. Focusing attention on equality of distribution of education resources, he contends, results in inattention to an important area of inequality, that of opportunity--not from the school system but from outside and "not overcome by the school system."

He concludes that if a child's opportunity is to be separate from accident of birth into a given family, society must move toward providing an equality of opportunity based on the distribution of educational resources and the intensity of effect of those resources.

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Evaluation of the Cumulative Effects of Research for Better Schools Career Education, 1974-1976. Thomas W. Biester. Philadelphia, Penn.: Career Education Program, RBS, August 31, 1976. (Funded by P.L. 8910, Title IV and by NIE Contract #NE-C-004-0011.) (ED 138 822)

This report examines the effects of participation in the Research for Better Schools (RBS) Career Education Program. The sample for the study was drawn from 10th, 11th, and 12th

grade students enrolled in 1974 in a large Philadelphia high school containing the Academy for Career Education. Students were randomly assigned to experimental and control groups. The experimental group participated in the Career Education Program while the control group continued in a regular high school curriculum. Instruments used to collect information on career skills, life or self skills, basic academic skills, and demographic characteristics included specially designed questionnaires as well as previously developed inventories and scales and the standardized "Comprehensive Tests of Basic Skills."

Compared with the control group, the experimental group demonstrated significant growth in career knowledge over the course of two years and showed significant growth on all basic skills measured.

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Factors Related to the Coordination and Effectiveness of Occupational Education Programs. Final Report. John T. Pelham. Jackson: Mississippi State University, Social Science Research Center, August 10, 1972, 196 pp. (ED 068 649)

The primary purpose of this study was to develop and test a model for the study of job creation, job training, and job placement in the community. Personal interviews with 84 community leaders, agency representatives, and major employers in four communities were conducted to gather manpower development process information. Additional data were gathered by participant observation, content analyses of documents, and from the census and training agency records.

Recommendations resulting from the study include the following:

- To avoid duplication of effort, job training agencies must have mutual awareness of service offerings.
- Members of the "power structure" must be aware of job training programs in the local community.

- Representation on advisory councils by community leaders and major employers should be encouraged.
- Formal evaluation of vocational-technical training programs should include information from local employers.
- Advisory and craft committees should be better utilized.
- Training programs should be designed for open entry/open exit.
- Administrators of vocational education should be encouraged to finance more interdisciplinary research, symposia, and new learning experiences.

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Hearings Before the Subcommittee on Elementary, Secondary, and Vocational Education of the Committee on Education and Labor. Volume 1. 94th Congress, House, First Session on H.R. 19 and Related Bills to Amend the Vocational Education Act of 1963. Washington, D.C.: U.S. Government Printing Office, February and March 1975.

This volume includes prepared statements, documents, and testimony from representatives of various states, special interest groups, and associations before the House subcommittee chaired by Representative Carl D. Perkins. The General Accounting Office (GAO) report, What Is the Role of Federal Assistance for Vocational Education? is reprinted in this volume, along with responses from the U.S. Department of Health, Education, and Welfare and the seven states covered in the GAO study.

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Hearings Before the Subcommittee on Elementary, Secondary, and Vocational Education of the Committee on Education and Labor. Volume 2. 94th Congress, House, First Session on H.R. 19 and Related Bills to Amend the Vocational Education Act of 1963. Washington, D.C.: U.S. Government Printing Office; March, April, May, and June 1975.

This second volume of prepared statements, documents, and testimony before the House subcommittee of the hearings to amend the Vocational Education Act of 1963 contains among its reprints documents submitted by Roman Pucinski, Rupert N. Evans, William G. Conroy, Edwin L. Herr, Norman C. Gysbers, and Terrel H. Bell.

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How Effective Is Schooling? A Critical Review and Synthesis of Research Findings. Harvey A. Averch, Stephen J. Carroll, Theodore S. Donaldson, Herbert J. Klesling, and John Pincus. Santa Monica, California: Rand Corporation, March 1972, 222 pp.

This report was prepared for the President's Commission on School Finance as part of its study of alternative funding arrangements for primary and secondary education. The objective was to assess the current state of knowledge regarding the determinants of educational effectiveness. Five basic approaches used in educational research were identified--input/output, process, organizational, evaluation, and experiential. The authors concluded from their review of research studies that "research has found nothing that consistently and unambiguously makes a difference in student outcomes." Six major issues toward which future research could profitably be directed were identified. A 15-page bibliography is included.

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Identifying Handicapped Students and Their Vocational Needs for 1977-1982. Marion E. Franken. Madison: Wisconsin Vocational Studies Center, University of Wisconsin, July 1977, 65 pp.

This report summarizes research conducted in Wisconsin during the fiscal year 1977. Included in the report is information concerning research objectives, methodology, instrumentation, and sampling design. The study, conducted to identify the cognitive, psychomotor, and affective characteristics of handicapped students 14-21 years of age in Wisconsin, surveyed a 20 per cent sample of the teachers of these students.

Data gathered indicated that the majority of the students were English-speaking Caucasian young men. The average intelligence quotient was below 80, and the students were generally below level in grade placement and achievement. Their career goals were in the areas of agriculture, manufacturing, consumer and homemaking education, and construction. The report included the following recommendations:

- Decision-making administrators and planners should prepare educators for the kinds of students who will enter vocational programs at the secondary or postsecondary level.
- Strategies need to be planned to assist the handicapped in the community and in the school.
- Preservice and in-service course experiences should be provided for vocational educators to learn special education techniques, and special education personnel should be provided to assist vocational educators.
- A determination of how these students have been affected should be made by recording their reasons for leaving a program of instruction.

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Manpower Economic Education and the Transition from School to Work. Robert L. Darcy, Richard V. Kauffman, and Edward P. Milker. Fort Collins: Colorado State University, Department of Economics, Center for Economic Education, February 1974, 217 pp. (ED 091 581)

Using longitudinal data gathered over a five-year period, a sample of 242 was drawn from 645 young female and male students for study to determine the impact of an experimental manpower economics course on world-of-work understanding, attitudes, and education-related and employment-related behavior. While the eighth-grade course (fall semester 1967-68) had significant short-run impact on understandings and attitudes of students who received instruction compared with those of control students matched for mental ability, few long-run differences were observed between the groups during high school and as of the February 1973 survey week eight months following graduation.

Wage rates and weekly pay were not associated with scores on a test of world-of-work understanding or with IQ, academic rank in high school, or family income but were associated with labor union membership and sex. Both the experimental and control groups made a smooth transition from school to work or to postsecondary educational programs; and labor force participation, wages, and work satisfaction were relatively high and unemployment rates low. On the other hand, major differences were observed between graduates and dropouts.

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Philosophy for Quality Vocational Education Programs. Fourth Yearbook of the American Vocational Association. Melvin L. Barlow, ed. Washington, D.C.: The American Vocational Association, Inc., 1974, 283 pp. (ED 102 425)

This American Vocational Association Yearbook deals with the relationship between the philosophical concepts and practical demands of program organization and operation in vocational education. Experienced educators present their differing philosophic orientations on a variety of topics.

Melvin L. Barlow views the role of vocational education in an industrial society from a historical perspective and presents the yearbook theme. Robert Miller examines the place and function of vocational education in the total

educational system. Garth L. Mangum presents the economics of vocational education in a social context for cost/benefit analysis, and Gordon I. Swanson focuses on the development of vocational education policy. Instructional principles, status of career guidance in America, learner characteristics, job placement and follow-up, and the place of community involvement in education are other topics addressed.

In the epilogue Barlow reviews relevant issues and stresses the need for a recommitment by all vocational educators to the basic principles and philosophy of vocational education.

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RBS Career Education, 1975-1976: Within-Model Evaluation Report. Thomas W. Biester. Philadelphia: Research for Better Schools, Inc., August 31, 1976, 50 pp. (ED 138 820)

This report describes the implementation of Research for Better Schools (RBS) Career Education at three sites during the 1975-76 school year. The program for secondary-level students uses three instructional components--Career Development, Career Guidance, and Basic Skills--to achieve program goals of providing students with cognitive skills, career experiences, and personal perspective to aid them in selection and pursuit of adult life goals.

Modeled after the RBS Career Education program in Philadelphia's Academy for Career Education in operation for four years, programs were initiated in Washington, Pennsylvania; Washington Township, New Jersey; and Wilmington, Delaware. Common evaluation activities conducted at all RBS Career Education sites during the year included monitoring program operations and assessing participant opinions. In general, responses indicated that students, parents, and community participants were in favor of the program and recommended its continuation.

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Rural Oriented Research and Development Projects: A Review and Synthesis. R&D Monograph No. 50. U.S. Department of Labor, Employment and Training Administration. Washington, D.C.: U.S. Department of Labor, 1977, 134 pp.

Based on a review of 71 documents, this report describes the results of research on employment and training problems and on programs in rural areas between 1963 and 1975. Major topics covered by this review, conducted by the Office of Research and Development of the Employment and Training Administration, include the various definitions of "rural" implied in the literature, factors affecting and techniques used in forecasting supply and demand for labor in rural areas, and findings and results of research and development projects in rural areas.

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Sex Fairness in Career Education. Information Series No. 109. Marla Peterson and Louise Vetter. Columbus: The Center for Vocational Education, The Ohio State University, 1977, 43 pp. (ED 149 179)

The first section of this paper addresses the question, "Why should we be concerned with sex fairness in career education?" Subsequent sections focus on the current status of women in employment and leadership positions in career education.

Suggestions for making career education "sex fair" include the following:

- Programs federally contracted should be conducted to teach women how to become aware of contract and grant announcements, how to prepare proposals, and how to manage contracts and grants.
- Criteria for selecting state leadership personnel should be widely disseminated.
- Leaders in career education should take the initiative to nominate and promote outstanding women to serve on the Advisory Council.

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Sex Fairness in Vocational Education. Information Series No. 120. John R. Schenck. Columbus: The Center for Vocational Education, The Ohio State University, 1977, 54 pp. (ED 149 189)

This report, a review and synthesis of significant literature on sex bias and sex-role stereotyping in vocational education, discusses the impact that stereotyping and bias have on careers in vocational education; the courses that have promoted sex-role stereotyping--socialization, instructional materials, vocational interest inventories, and the world of employment; and the forces that promote eradication of sex unfairness in vocational education.

To reduce sex unfairness in vocational education, the author recommends the following policies:

- Enforcement of appropriate laws
- Administrative support from the vocational education hierarchy in each state
- Affirmative action in promoting vocational programs
- Provision of new models to encourage young people to widen their occupational considerations and aspirations
- Requirement of in-service education for vocational educators
- A re-examination of the principles of vocational education
- Dissemination of information to help eliminate sex unfairness

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A Study of Our Nation's Schools. George W. Mayeske, Carl E. Wisler, Albert E. Beaton, Jr., Frederic D. Weinfeld, Wallace M. Cohen, Tetsuo Okada, John M. Proshek, and Kenneth A. Tabler. Washington, D.C.: U.S. Department of Health, Education, and Welfare, Office of Education, 1972, 126 pp. (ED 082 312)

Intended as a sequel to the Coleman report, Equality of Educational Opportunity, this study was designed to discover which characteristics of the nation's schools are most closely related to school outcomes. A five per cent stratified cluster sample was taken which resulted in the inclusion in the study of about 650,000 students from approximately 4,000 schools. Information was also collected from their teachers, principals, and superintendents. The questionnaire items related to student social background, school characteristics (facilities, programs, policies, personnel, and personnel expenditures), and school outcomes (student attitudes, motivations, and achievement).

The study concluded that, although schools are important, their influence is bound up with student social background. To gain more knowledge of specific sources of influence, experimental studies of educational innovations were recommended.

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Vocational Education for the Handicapped: A Bibliography of ERIC Documents. Paul E. Schroeder. Columbus: The Center for Vocational and Technical Education, The Ohio State University, August 1973, 33 pp. (ED 083 480)

This annotated bibliography, limited to abstracts from Resources in Education (RIE), consists of documents with "career education," "job training," "manpower development," "vocational education," or "vocational retraining" as the major descriptor. A selection of 37 judged most relevant is included in abstract form according to publication dates from 1970-1972.

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Vocational Education for the Handicapped: A Review. Information Series No. 119. Marc E. Hull. Columbus: The Center for Vocational Education, The Ohio State University, 1977, 64 pp. (ED 149 188)

This paper reviews the role vocational education has played in the career development of the handicapped and discusses the expanded role it must assume. Specific topics are discussed: "A rationale" for the participation of the handicapped in vocational education and barriers to their participation; the impact of legislation on vocational education for the handicapped (P.L. 94-142, 94-482, and 93-112); identifying the handicapped; developing program alternatives; prevocational education; interagency cooperation; instructional materials; personnel preparation; and program evaluation.

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Youth: Transition to Adulthood (Report of the Panel on Youth of the President's Science Advisory Committee). James S. Coleman, Chairman. Chicago: University of Chicago Press, 1974, 193 pp.

The stated purposes of this report are "to examine the contexts that now exist for youth, within which they come to adulthood; to assess the fitness of these contexts for the accomplishment of the developments necessary to full maturity; and then to propose alternative settings that seem to be preferable ways of accomplishing that assignment."

Part 2 of the report details the history of age grouping of young people in America, rights of children, demographic characteristics and economic problems of youth, and current status of educational institutions. Issues discussed in Part 3 include various aspects of age segregation in school and in the community, the scope of formal school, and the legal status and rights of youth.

Historically, treatment of youth in American society is viewed as having consisted of two phases--the work phase of the earlier agrarian society and the schooling phase of modern society, wherein young people have been kept in school as long as possible and, consequently, out of the labor force.

Among the proposals for changing to a third phase that would include, but not be limited to, schooling are the following:

- Changing the school structure
- Alternating school and work
- Adding education of youth to the production function of work organizations
- Balancing protection and opportunity rights of young people
- Providing young people with opportunities for public service
- Researching existing institutions and the effects of various environments on youth

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III. CONSOLIDATED INDEXES

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[10]"Project identifier" refers to the name given to a particular project which produced a number of documents relating to the activities of the project. Examples are "National Longitudinal Surveys" and "Project Baseline." Full citations and annotations of these publications are listed alphabetically by title under one of the given categories in Section II above. In the absence of a project identifier, the publisher is listed.

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PUBLICATIONS RELATED TO THE PROJECT
"EXAMINING VOCATIONAL EDUCATION OUTCOMES"

* * *

Darcy, Robert L.; Bolland, Kathleen A.; and Farley, Joanne. Vocational Education Outcomes (Final Report on Year One of the R & D Project "Examining Vocational Education Outcomes and Their Correlates"). Columbus: National Center for Research in Vocational Education, The Ohio State University, January 1979.

* * *

Bolland, Kathleen A. Vocational Education Outcomes: An Evaluative Bibliography of Empirical Studies. Columbus: National Center for Research in Vocational Education, The Ohio State University, 1979.

Darcy, Robert L. Vocational Education Outcomes: Perspective for Evaluation. Columbus: National Center for Research in Vocational Education, The Ohio State University, 1979.

Farley, Joanne. Vocational Education Outcomes: A Thesaurus of Outcome Questions. Columbus: National Center for Research in Vocational Education, The Ohio State University, 1979.

Taylor, Carolyn M.; Darcy, Robert L.; and Bolland, Kathleen A. Vocational Education Outcomes: Annotated Bibliography of Related Literature. Columbus: National Center for Research in Vocational Education, The Ohio State University, 1979.

For Further Information

For information concerning the above publications and the vocational education outcomes project, please contact:

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